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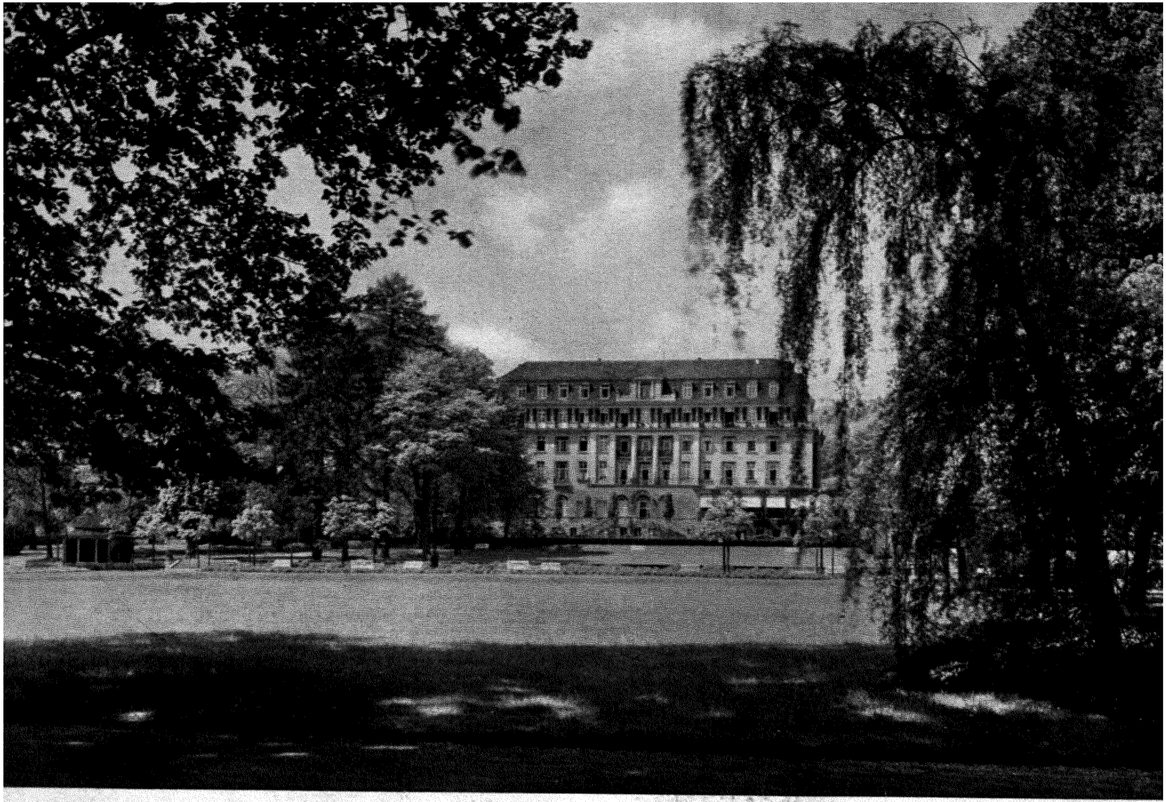
PROCEEDINGS
OF THE
THIRD INTERNATIONAL CONFERENCE
OF
AGRICULTURAL ECONOMISTS



The Fürstenhof, Bad Eilsen

PROCEEDINGS
OF THE
THIRD INTERNATIONAL CONFERENCE
OF
AGRICULTURAL ECONOMISTS

HELD AT
BAD EILSEN
GERMANY
26 AUGUST TO 2 SEPTEMBER 1934

LONDON
OXFORD UNIVERSITY PRESS
HUMPHREY MILFORD
1935

OXFORD UNIVERSITY PRESS
AMEN HOUSE, E.C. 4
LONDON EDINBURGH GLASGOW
NEW YORK TORONTO MELBOURNE
CAPETOWN BOMBAY CALCUTTA
MADRAS SHANGHAI
HUMPHREY MILFORD
PUBLISHER TO THE UNIVERSITY

PRINTED IN GREAT BRITAIN

PREFACE

THE Third International Conference of Agricultural Economists, held at Bad Eilsen, Germany, at the end of August 1934, had several features of particular interest. Chief among these, however, in the minds of those who took part, was the free and unprejudiced manner in which the Conference discussed problems which have in recent years caused acute disagreement among nations, such as the protection of a nation's agriculture in face of the depression in agricultural importing countries, international debt and monetary problems, and the development of regional trade agreements. The success of the Third Conference in this respect was all the more gratifying since the programme was designed to deal exclusively with matters of national and international policy.

It is one of the most valuable characteristics of the International Conference of Agricultural Economists that, while the subjects with which it has to deal have come more and more within the sphere of politics and government control in recent years, its membership is composed of individuals and academic societies, and not of official representatives of governments, although the Conference numbers several past and present Ministers of Agriculture and many distinguished public officials among its members. This scientific and non-political character of the Conference is a feature which it is most necessary to preserve, especially since the matters for discussion have social and political as well as economic and scientific implications.

The Third Conference was held in Germany at the invitation of the German Group, and the Conference is deeply indebted to Professor Max Sering for directing the enormous labour of the arrangements for the Conference, and to the other German Members of the Council, Professor Zörner, Professor von Dietze, and Dr. Seedorf, for their work in organizing the accommodation of the Conference and in arranging and conducting the tours through Germany before and after the meetings. The proceedings of the Conference were conducted simultaneously in German and English, and special thanks are due to Dr. Rolfes, without whose help the bilingual procedure would not have met with such marked success.

The Conference also owes a deep debt to Mr. J. R. Currie and his office for their services in the preparing of the road for the conference, and to J. P. Maxton, who has acted as editor of the *Proceedings*.

It was the main objective of this Conference to draw out the divergent philosophies and policies of rural life in the various countries as well as to learn of the schemes devised nationally and internationally to assist agriculture.

The peoples of the overseas agricultural countries cannot afford to neglect the aspirations of the rural populations of Europe, nor can the industrialized countries neglect the prosperity of those countries whose existence depends on exporting agricultural products. The papers in this volume contain much that is of vital interest to agriculturists and economists all over the world. I feel sure that its comprehensiveness will make it a most valuable publication in the hands of many besides those specialists who describe themselves as agricultural economists.

LEONARD K. ELMHIRST
President.

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INTRODUCTION

A SHORT outline of the construction of the Programme for the Conference and the arrangement of the papers will be useful in directing readers through the pages of this, the third volume of the *Proceedings of the International Conference of Agricultural Economists.*[1]

The programme of the Third Conference was prepared with the purpose of emphasizing the significance of national policies and aspirations, their interaction in the modern world, and the international problems of economic relations which result, all with special reference to the sphere of agriculture. At the previous Conferences considerable attention had been given to the technical problems of agricultural economic research, but, in view of the gravity of world conditions in the period 1930–4, it was decided that the Third Conference should devote its whole time to a study of national and international policies and that questions of research method should be omitted.

The programme was divided into four sections, the same division being followed in this volume of the *Proceedings.*

The first section consists of papers dealing with the national policies of various countries, special emphasis being laid on the forms, stages, and limits of economic planning. It was impossible within the limits of the programme to have all countries represented in this series or for each paper to deal in detail and at length with a nation's policy. This difficulty was in part met in advance by the circulation of reports on the economic conditions and political developments of agriculture in twenty-one countries (for list of countries see pp. 477–8). This work was initiated and directed by Professor M. Sering.

The countries for which papers were delivered at the Conference are in many respects representative of certain types. The classification made in organizing the programme and the countries taken as representing each class were as follows:

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[1] Volumes i and ii of the *Proceedings*, reporting the First and Second Conferences, held in 1929 and 1930, were published by the George Banta Publishing Company, Menasha, Wis., U.S.A. Copies are obtainable in Europe from J. R. Currie, Research Dept. (Economics), Dartington Hall, Totnes, Devon, England; in the United States of America and Canada from Dr. G. F. Warren, Department of Agricultural Economics and Farm Management, Cornell University, Ithaca, N.Y.

The main part of the Proceedings of the Third Conference has been published also in a German Edition—*Vorträge und Verhandlungen über die Weltagrarkrise* (Hans Buske Verlag, Leipzig, 1934).

(*a*) deficit countries with intensive farming methods (Great Britain and Switzerland);

(*b*) deficit countries approaching self-sufficiency (Germany and Italy);

(*c*) surplus countries with intensive farming methods (The Netherlands);

(*d*) surplus countries with peasant methods (the Danubian countries and India);

(*e*) overseas countries with mechanized or specialized systems of production (U.S.A. and Canada).

The second section of the programme dealt with a fundamental cleavage in the social and economic organization of farms throughout the world, the peasant system on the one hand and the Russian collectivist experiment on the other, to take the two extremes. It was intended that this section should not be confined to these extreme cases, but that it should include both the family farm (which, in many countries, has a different meaning from the peasant farm) and, on the other side, the large-scale capitalist or corporation system of farming (which, while requiring large-scale industrial methods, is not collectivist like the Russian experiment). The family farm is the subject of one paper, but discussion of the large-scale capitalist or corporation farm is unfortunately lacking.

The third section dealt with certain fundamental aspects of the trend of natural forces governing supply and demand—in sharp contrast to the whole of the previous sections, in which it was made clear that the political control of supply and demand was at present a dominating force in nearly every country. Of the two papers in this section, one dealt with the prospect of a declining population, and the other with the trend of population in relation to the depletion of the natural resources of the food supply.

The fourth section dealt with economic problems which are international in character and for which international solutions are sought. The first group of papers dealt with international currency and international debts; the second with trade agreements between nations; the third with attempts at international agreement for the control of production or of marketing.

In addition to the papers prepared, a few contributions were made in the limited time available for open discussion in the full Conference. These are reported at the end of the sections with which they deal. In addition to the main sessions, a number of informal groups met to deal with special problems. One of these meetings, which dealt with the measures taken to regulate milk marketing in U.S.A., Germany, and Great Britain, is reported in an appendix (p. 465).

A photograph, with key, is placed between pp. 478 and 479. The names and addresses of those attending the Conference will be found on p. 479.

Particulars of the International Conference of Agricultural Economists, its constitution, and list of members and correspondents in the various countries will be found on pp. 481–95.

ADDRESSES OF WELCOME

President, L. K. ELMHIRST.

DR. SERING, Dr. Warren, Professor Meyer, ladies and gentlemen, I wish to welcome you all to our Third International Conference of Agricultural Economists.

I would like first of all to convey to our hosts our thanks for the wonderful arrangements they have made here for us and for their great trouble and pains in organizing not only much of the programme but also the tours before and after the Conference. Only one who has had, during the last three years, to discuss the programme to its fifteenth revision, now with Dr. Warren in America and then with Dr. Sering and Professor Zörner in Berlin, can fully appreciate the efforts these gentlemen have made on your behalf.

I should like also at this opening session to thank the German Government for all the assistance they have given and for sending to our Conference to-day their representative in the person of Professor Konrad Meyer.

Why are we assembling in this place to-day? May I remind you of the objects of our Conference as laid down in the Constitution.

> 'The object of the Conference is to foster the development of the sciences of agricultural economics and to further the application of the results of economic investigations of agricultural processes and agricultural organization in the improvement of economic and social conditions relating to agriculture and rural life.'

That is a very good and sufficient reason to-day and needs no explanation. If I may draw a simile, one thing that always interests me when visiting Germany is that outside the shops of your barbers there still hangs a small brass plate. This is the relic of the days when, if we fell sick, our families would have quarrelled among themselves as to whether we should be bled or not. Having decided for the operation the barber would have been called in bringing his little plate with him. To-day when we are sick, we do not leave it to our families to argue about the diagnosis and cure, and we do not allow ourselves to be treated surgically in barbers' shops. We go to hospital, where a group of specialists examine, consult, and decide on the cure appropriate to our sickness—seldom blood-letting but not infrequently blood transfusion. I offer that for your consideration. Many of you can call to mind, as I can, the innumerable cases where in the problems of sickness in agriculture and rural life, methods analagous to the obsolete custom of blood-letting are still being used. People still argue rural problems this way and that on sentimental and emotional grounds, and readily hand over the patient to quacks of all kinds. Very rarely are our agricultural problems tackled by the scientific method of diagnosis, economic, psychological, and sociological, and too often even the data and records which are available are completely disregarded by the party politician. The new wisdom of figures and science is only just beginning to be applied here and there in the treatment of those economic and social ills from which the world suffers to-day. That to me is adequate reason for inviting you all to meet here as specialists, to approach the problems before you with a scientific attitude, and to exchange frankly and freely your expert knowledge and experience. Thereby alone can we bring about that sharing of views and consultation, as the doctors call it, out of which the new wisdom must be born. It is only in this way that we are going to be able to offer some hope of certain recovery to a very sick world.

I wish to convey to you a personal message from H. A. Wallace, U.S.A. Secretary of Agriculture, who was present at our first meeting in Devon five years ago. He very much regrets, he writes, that he cannot attend this Conference, and expresses the hope that we should discuss principles and try to find out some new rules for the game of international trade and some solution for the disagreements that arise between nation and nation. I agree with him that it is up to all of us to try to discover a new set of rules for this game of international exchange of goods and credit. For all exchange between nations is based on 'credit'. The word, as you know, comes from the Latin *credo*, 'I believe'. I believe in you and you believe in me. That is the basis of all trust between persons or between nations and mutual trust is the basis of credit. I would like then to open this Conference on these two notes, (*a*) the need for the scientific approach and diagnosis, and (*b*) the need for good fellowship and mutual trust, as the basis for frank discussion and consultation.

May I recall to you our experience at the two earlier conferences. At the first, fifty of us met in rural England. By our conference sessions we learned of each others' work and ideas. But by our recreation we learned to know each other. We played international cricket—even Dr. Warren and Henry Wallace acquired something of the art—and the cricketers among us tried our hands at baseball. Out of our games came a new understanding, and I was compelled to arrive at the second Conference at Cornell carrying from England six cricket stumps, four bails, some bats, and a ball. Many of you who are here to-day will be able to count up the number of happy and useful personal contacts which you made as a result of our two earlier conferences and which have borne rich fruit these last five years. For myself, these conferences have meant a continuous enrichment in knowledge and fellowship, and I have been brought into direct touch with new developments, new countries, and new minds in a way which would have been impossible without them.

Therefore, while I emphasize again that our main task is to share our special knowledge and experience in the formal sessions of our Conference, we must not forget that the personal friendship and mutual understanding born of a week spent together will enable our discussions to bear rich and positive fruit. When, therefore, newcomers feel some surprise at the open spaces in the programme, they will learn that they are there for a very good reason. They are to be spent in the wide open spaces of the garden, the tennis courts, the swimming-pool, the golf course, and elsewhere. I think you will agree by the end of the Conference that some of your most profitable meetings have been held informally in this way.

I have no more to say, except to call on our Vice-President, Dr. Sering.

Vice-President, PROFESSOR MAX SERING.

Ladies and Gentlemen, on behalf of the German Group I bid you all a hearty welcome, and thank you for the interest shown in our work by coming here. Many of you have not hesitated to undertake a long journey, in order to participate in our Congress and get to know our country. We hope that you will be as happy in Germany as we were four years ago at the beautiful Cornell University with its deep and lasting impression, or as were the Members of the first meeting in the parent-house of our Conference, the stately country home of our President, Mr. Elmhirst. We wish to do everything to repay to a modest extent the hospitality which we enjoyed in America and England.

There are gathered together in our Conference representatives of economic and social research from twenty-seven civilized countries. Research institutes have put their services at the disposal of this international organization. Our conference, therefore, seems specially called upon to obtain by systematic discussion a picture of the causes of the economic crisis common to all civilized countries, to learn of the remedies chosen and of their success or failure.

In order to prevent too much material burdening the lectures of the coming week, our experts have sent in written reports on agrarian policy and the position of agriculture in their own countries. The Officers thank them all most heartily. I myself have fallen in with their wishes and submitted to the Members present a report which supplements the picture of German agrarian policy by detailing its historical and geographical basis, for many of you are in Germany for the first time and will gladly avail yourselves of the opportunity to get a more thorough knowledge of our country and its people. Unfortunately there has not been enough time to get an English translation ready, but, if possible, we will let you have one afterwards.

In addition, I have ordered the distribution of a second pamphlet published two years ago entitled *World Crisis and the Reorganisation of Europe*, because it contains documentary material which, in my opinion, will be of importance to our deliberations.

We shall, however, obtain the best results from the verbal discussions based on the many-sided experience and conclusions of the research of our members. Once more, therefore, a very hearty welcome to you all!

DR. K. MEYER, *Ministry for Public Instruction, Berlin.*

Mr. President, ladies and gentlemen, on behalf of the Minister of Public Instruction of the Reich I have the great honour to offer you greetings and best wishes at the opening of this International Conference of Agricultural Economists. The Reichsminister regrets sincerely that he is unable to be present in person and to participate in the various discussions and follow your important work.

I venture to express the hope and the wish that you, gentlemen, who are our esteemed guests as the representatives of agricultural research of foreign nations, will find your stay in Germany as agreeable and at the same time as stimulating as possible, and that the expectations with which you have come to this Conference will be justified to a high degree.

You may be assured, gentlemen, that all of us, and especially the Reichsnährstand, welcome you sincerely on our German soil. We regard you as emissaries of those nations which show a keen interest in the great political and intellectual reorganization taking place in these days in Central Europe. By stressing the fact that the Minister will follow closely the progress and work of this congress I should like you to realize the paramount importance which the German political leaders of to-day attach to agriculture and agricultural research.

There can seldom have been a congress which commenced so much under the impress of great political events and of a new spiritual era as this third meeting of agricultural economists in Eilsen. Hence follows its special importance and the special character as well as the particular problems of the work of the next few days.

Unfortunately, the world of to-day shows in the most different departments a reciprocal shrinking of the various and deepest connexions between the nations and their economic life. Every balance of international trade exhibits year after year in dry figures the constantly growing decline of these valuable exchanges. But it is equally clear and unmistakable to every observer that this falling back on one's own resources takes place also in all the other activities of the nations.

Science and research, until recently but little nationalized and crossing national borders with hardly any difficulties, are not exempt from this development. You may regret this development, but if one believes that race and soil form the foundations and conditions of the racial life and the well-being of the peoples, one cannot help recognizing that science and research too should primarily find their strength and their fulfilment in those nations whose members are cultivating them. You cannot very well transfer directly the civilizations of different nations, and there is no more reason to expect that all results of scientific research will be universally approved of by all nations. This applies especially to the science of agricultural politics where you find, as the name already suggests, an absolutely necessary connexion between politics and science. This science, therefore, can never deny that people and soil are the reason and the source of its life.

Who among us would ever deny, for example, that it is not the principle of research for the sake of research which is guiding his scientific work, but much rather the proud consciousness of serving his country best by his work? And who would assert that this truly patriotic spirit lacks moral greatness?

But you should not expect from science political actions which lead to immediate revolutions. Revolutions are always made by people with political minds, who are full of uncompounded force and natural instinct. The fruit on the tree of science, on the other hand, only ripens slowly. Hence the noble task of science to penetrate to the fundamental real existence of the political events, and to help to realize for the people and the state an order of life and an attitude of mind which has been gained by this experience.

But it would be futile to believe that an exchange of thoughts beyond the national frontiers becomes superfluous once we acknowledge that science has got national ties and frontiers. On the contrary, just because every nation tries hard to form a unity of its own in its cultural functions, the exchange from nation to nation will have a still more impressive and more useful result for the common life of the peoples. For an international exchange of mutual experiences and judgements like the present one is no longer concerned with convincing the others of the correctness or falsity of one's opinion or even with imposing on them one's own dogma, but as the problems are common to all of us, we will try to understand and to appreciate the efforts of others to solve them and to turn these efforts to a common account.

The problem which to-day is facing all nations represented at this conference and which shows in its connexions and effects so many common features is the concern for the maintenance of a healthy and efficient peasantry.

May this congress be of special value in solving this foremost agrarian problem by making us realize that we will have to be courageous and to begin in nearly all respects a new abstract elucidation and systematization.

Further, may this exchange of thought lead beyond that to points of contact and common interests wherever these can be found. The meeting in this particularly rural district of our fatherland, which in the progress of centuries has sent its surplus of strong and healthy sons not only to other German regions and German towns but also across the seas—May your meeting, gentlemen, in this secluded spot serve to discover and to strengthen old and valuable ties of blood between the nations!

May the work of the next few days, helped by the vivid impressions and sentiments which you gained on your journey through the regions of Germany, give you primarily the feeling that here is a people desperately struggling for the maintenance of its particular sort of national culture and civilization—still very often misunderstood and calumniated in the rest of the world—with but one will: to assist the recovery of the world and the pacification of the nations by solving its internal problems in a way suited to its conditions. For only healthy and confident peoples are a true guarantee of a peaceful life in the community of nations helped and strengthened by a mutual cultural and economic exchange!

Vice-President, DR. G. F. WARREN.

It is a great pleasure once more to have the opportunity to greet those members whom I have met at previous Conferences, and whose work I have come to know and respect, and an additional pleasure to meet so many new members and add the wealth of acquaintance with them. I believe that through these meetings we will further the facilities of research work in our fields, and extend our knowledge and increase our zeal for such work.

Personally I feel a debt of gratitude to the country that is acting as our host. I was fortunately a student in an American university in the nineties at a time when a flood of young Americans were coming to Germany to study science, and I had the opportunity to study under some of those who returned with new laboratory methods for teaching and research in psychology, electricity, chemistry, and bacteriology. American universities received a great stimulus in the humanities from the English universities and in science from Germany. For the past twenty years economic troubles have interfered with research and the free exchange of ideas; we now hope that the torch of learning may replace the rifle.

The object of this Society is to present the results of our research work and increase the zeal with which such work is pursued. Science knows no boundaries, needs no passport, passes all tariff walls, and does not have to register with the police. Any scientific work which we do becomes the heritage of all men.

We are often told that our recent economic difficulties have arisen because we have violated economic laws. Economic laws cannot be violated any more than physical laws. If an engineer builds a bridge that is supposed to carry 30 tons but breaks under 10 tons, he has not violated any of the laws of mechanics nor the law of gravitation, he has merely made a mistake. When a man jumps out of a window he does not violate the law of gravitation, he uses it unwisely. Only a little of the laws of economics has yet been discovered, and what is known by economists has not yet become general knowledge, so that our acts bring many surprises.

A public official recently said to me that when the economists tell us that if we do a certain thing then a certain result will follow, we often get an entirely different result. Personally I think that for every mistake that comes from a wilful desire to injure any one, many mistakes are made from not knowing the results that will come from our action.

We all appreciate the great amount of work that Professor Sering has done in the preparations for this Conference. I have wondered how he could do so much; probably it is because he has the help of a wife who never grows old in spirit or in courage.

When the first Conference met in England, private conferences were so numerous and persistent that a means had to be found for checking these and for bringing the general conference into session. It happened that once upon a time a cow on the Plains of Salisbury had a bell for keeping the herd in proper co-operation. She lost her insignia, and I don't know what chaos may have resulted; but Mr. Elmhirst found it and made use of it so successfully in the conference that it has become the insignia for this Conference—you will find a cut of it on the back of the volumes of our proceedings. Its tongue has been silent for three years, but we will now release it.

AGRICULTURE IN GERMANY

H. ZÖRNER

Agricultural High School, Berlin

IN forty-five minutes I am to give you an outline of agricultural conditions in Germany and of the problems arising out of these conditions. In so short a time I can, of course, only state the most important facts and can only touch upon a few problems.

Germany comprises 470,000 square kilometres (181,000 sq. miles) with a population of 66·1 millions. That means the size of Germany is only 6 per cent. of that of the United States, but the population is over 50 per cent.

The density of population is 139·4 per square kilometre (370 per sq. mile). This is a very high figure. Already before the war Germany was one of the most densely populated countries, and now that the treaty of Versailles has deprived Germany of 15 per cent. of her territory but only of 9 per cent. of her population, the accumulation of a high population on a close area has been aggravated.

Few countries are more densely populated than Germany. These countries either command extremely favourable conditions of economic production—for instance Belgium—or they possess great colonies to amplify the home country, for example Great Britain and Holland. In the case of Germany the density of the population presents very weighty problems.

The percentage of the population employed in agriculture has continually decreased since the last century, and now reaches only 30 per cent. For comparison let me give the corresponding figures: for Poland 76 per cent., for France 38 per cent., for the United States 26·7 per cent.

This unfavourable distribution of the population, the concentration of one-third in the big cities, and the rapidly falling birth-rate in the towns offer serious economic problems.

I will now show you in brief outline what basis of existence Nature offers to this nation which numbers half the population of the United States, and which forms the most populous state in Europe with the exception of Russia.

The soil of Germany is extremely varying, but on the whole must be considered poor. The entire south and most of the south-west of the country is of hilly or mountainous character. Here we find soils of greatly differing geological origin. On all soils, however, in certain altitudes arable utilization of the soil is always limited by climatic reasons. Therefore in the higher ranges of these hilly districts arable farming is very restricted and live-stock farming becomes prominent.

On entering the plains and valleys of south and south-western Germany we mostly find better soils which are operated in intensive arable farming, mainly in small holdings. To the north of the hilly country of south and south-western Germany we pass through the very diverse conditions of central Germany and then enter upon the lowlands of north Germany. These north German plains have in part good loamy soils, but in much greater proportion also sandy soils of very poor fertility. The various glacial periods which passed over Germany covered great expanses of the north with sand and gravel.

Roughly speaking, we can sum up as follows: In the flatter parts of west and central Germany good soils predominate. In certain parts, for instance in the north-west, moors are interspersed, and partly also sandy stretches such as the Heath of Lüneburg. Eastwards the soils become lighter. The province of Brandenburg (that is, the district around Berlin) and the Grenzmark show an extremely high percentage of sandy soils which are often of very scant fertility.

In the north-east sand and loam are greatly intermixed with abrupt and frequent changes of soil quality within a small area. A low range of hills, running from Schleswig-Holstein, through Mecklenburg and Pomerania into east Prussia for a long period was the barrier of the receding glaciers. These hills form a belt of typical glacial deposits with terminal and bottom moraines. The southern slopes of these hills are covered with very poor sands.

Fertile and easily cultivated arable soil of the 'loess' or 'black-earth' type is to be found in various parts; in the Rhine area near Mainz; in central Germany in the plain of Magdeburg and adjacently as far west as Hildesheim and Brunswick; in a corner of Pomerania; and in the vicinity of Breslau in Silesia. These districts are extremely fertile and allow of the most intensive soil utilization, and here we find most efficiently organized and handled farms. Unluckily such soils form a very small percentage of our total acreage.

The type of soil without reference to the climatic conditions gives us a very incomplete idea of the economic value of the land. So we must at least cursorily dwell upon the climate of Germany.

The mean annual temperature varies from 7° to 9° Centigrade (44° to 48° Fahrenheit). The fundamental difference between the east and the west lies in the length of the period of vegetation. The west is herein far better off. This also applies to the north-western parts, which are favoured by an oceanic climate. The farther east we go, the more pronounced becomes the influence of the continental climate originating in the great Eurasian land masses. The most important consequence is a sharp curtailment of the period of vegetation, which places strict limits to the development of arable farming. For example, the expansion of root-crop cultivation beyond a certain low limit is only conditionally possible in the east because the late conditions of root-crop harvest clash with the seeding of rye and wheat, which must be done before the early setting-in of winter.

But rainfall is of more decisive importance for agricultural development than temperature conditions. The average rainfall in Germany amounts to 600–25 mm. (24–5 in.), and varies from 2,000 mm. (80 in.) in the higher ranges of the Black Forest and the Alps down to barely 400 mm. (16 in.) in certain arid parts of central and eastern Germany. For comparison I will mention the following data:

Poland: 510–790 mm. (20–32 in.).
England: 580–920 mm. (23–37 in.).
North Dakota: 475 mm. (19 in.).

The seasonal distribution of rainfall in Germany is fairly satisfactory. Frequently, however, a dry period intervenes in May and June and leads to drought on lighter soils with subsequent damage to harvest yields. Such has been the case this year. In the higher regions of central and southern Germany crops scarcely ever suffer from lack of rain. On the contrary, plenteous rainfall here often endangers the ripening and gathering-in of the crops. In consequence the farms extend the acreage of permanent grass and show a greater development of the live-stock enterprise. The same is the case in the north-west coastal belt. Here rainfall varies from 700 to 800 mm. (28–32 in.). Furthermore, the high humidity of the atmosphere and the stiff and weedy nature of the soil tend to foster the development of permanent pasture land. Thus this coast belt has become a typical dairy and cattle-raising district.

In eastern Germany rainfall usually is about 500 to 600 mm. (20–4 in.). On lighter soils lacking water-supply from the subsoil, this amount of rain is so low as to cause difficulties in cultivation. Plants with higher requirements become unreliable in their yields. Humbler crops such as rye, oats, and potatoes predominate. On these sandy soils entirely dependent on rainfall, the growth of any forage crops is a particularly difficult problem. An effective utilization of these light sandy soils is usually only possible where they can be operated in conjunction with grassland, primarily meadow land situated on damper soil. In this case the fodder crops of the grassland may form the basis of a live-stock enterprise, which in turn supplies the light sandy soil with organic matter in the form of manure, and thus ensures a certain stability in the yields of the arable land. Where there is no possibility for live-stock farming, these lightest soils drop out of agriculture and are stocked with timber, mainly pines. This is the reason for the great extent of forests, chiefly pine forests, in eastern Germany.

The natural conditions of the country are reflected in the soil utilization. Twenty-seven per cent. of the surface of Germany is covered with forests, whereas the percentage of forest land in Denmark, Holland, and Great Britain lies between 5 and 10 per cent. The greater part of the agriculturally utilized area is arable land, which occupies 70 per cent. of the agriculturally utilized land.

It must be borne in mind with reference to these figures that the density of population in Germany compels an intensive form of soil utilization.

Therefore all land that is in the least degree suitable is exploited in forestry or agriculture. Only the utterly barren tracts remain waste land, and are not taken into cultivation.

On the whole the natural conditions of production in Germany are unfavourable and certainly poorer than in western and southern Europe, where the climate is better, and at least in point of soil quality worse than in great parts of eastern Europe.

Only the high population and the ensuing need to make fullest use of the limited space at our disposal has resulted in such intensive soil utilization as is to be found in Germany. The intensity of soil utilization can be gauged by the high proportion of arable land and the great extent of root-crops, which occupy 21 per cent. of the arable land in spite of the heavy outlay in labour and fertilizers which they require.

As is the case in arable farming in all countries, grain is the most important crop, and covers on the average of the whole country roughly 60 per cent. of the arable land, just as in the United States or in France. Of course the grain acreage varies from farm to farm, but very seldom drops below 50 per cent. This figure would represent a strict alternation of grain crops with root or forage crops, as is practised in the four-course shift. On the other hand, the grain acreage rarely exceeds 66 per cent. This proportion corresponds to the three-field system, in which two-thirds of the arable land is seeded with grain. The diversity in the system of arable farming in Germany is therefore not the result of greatly varying grain acreage.

It is the different utilization of the land occupied by crops other than grain which distinguishes the various cropping systems. This land is chiefly used either for forage crops or for root-crops. The main root-crop is potatoes, then follow mangolds and sugar-beet.

In all regions with high rainfall, and also in all districts with very remote markets, the grain crops are mainly supplemented by forage crops, whereas under favourable marketing conditions and on good soils root-crops predominate. The relationship between grain crops, on the one hand, and root or forage crops, on the other hand, determines the labour and capital requirements of the farms.

In combined grain- and forage-crop farming the grain crops determine the demands on labour and other means of production. The forage crops serve to balance the seasonal labour peaks caused by the grain crops. This type of agriculture is extensive and works with low outlay.

In the root-crop type of farming, the root-crops are the deciding factor for requirements in labour and inventory. The grain crops, although maintaining the same acreage as in the previous type, exercise a minor influence upon the organization of the farm; they compensate the irregularities of seasonal labour demands by the root-crop, which here fix the maximum requirements. Here we meet with an intensive form of arable farming with heaviest demands upon capital and labour outlay, but also with plentiful yields.

The outstanding grain crop is rye, then come oats, wheat, and barley in that sequence. The great acreage of rye and oats is significant of our poor soil and climate. Rye and oats are predominant mainly in eastern districts, whereas wheat and barley occupy greater acreage in western and central Germany. Only in particular rainy parts, for instance along the coast and partly in the mountains, oats and rye are of special value—oats as a consumer of water and rye because of its qualities in suppressing weeds.

Amongst the root-crops the potato reigns supreme in the east. Rye, oats, and potatoes are the mainstay of arable farming in eastern Germany. Sugar-beets are a minor feature in the east. Only in Silesia are they grown in central Germany, and in certain parts of the west and south-west. On the already mentioned 'black-earth' belt we find highly developed root-crop farming with a great acreage of sugar-beet.

In connexion with the root-crops I may mention vegetable and truck crops, which are mostly grown on peasant holdings. These crops are of special importance in certain parts, for instance along the Rhine near Bonn; then between Brunswick, Hildesheim, and Hanover; again near Calbe in the Magdeburg district; in the vicinity of

Hamburg and Berlin; in the lower Oder valley and in the Spree forest; in the south around Würzburg, Bamberg, and Stuttgart; in the Badish Rhine valley near Rastatt and Mainz.

Farms with a high percentage of forage crops are to be found along the coast and in the mountains, in the remote eastern districts with unfavourable climate; that is to say, in Mecklenburg, Pomerania, and particularly in east Prussia. So we find a strip of forage farming running along the north and south borders of the country and in the hills, whilst all the rest of Germany is occupied by farms of the combined grain and root-crop type.

Our highly developed live-stock farming is based upon permanent grass, upon forage crops, and upon the by-products of other crops. The dominating class of live stock is cattle, which are to be found without exception on practically all German farms. The greatest cattle holders are the peasant farms, especially those of smaller size. The result is a greater density of cattle population in the south and west as districts with a preponderance of small holdings. The main purpose of the cattle enterprise is milk production. In the north-western coastal belt and in the mountains fattening also plays an important part, and in certain coastal districts fattening is the sole purpose. In peasant holdings, mostly in the south, cattle are also used for draught. Indeed, in these small holdings, cattle—chiefly cows and to a lesser extent oxen—are the only draught animals of the farmer.

An important point in German live-stock farming is the production of manure, which is a vital necessity to the farm. The comparatively high yields in German arable farming on poor soil and under an unfavourable climate can only be maintained by very intensive application of manure, which is in some cases supplemented by ploughing-in green crops. On very many farms the manure requirements form *the* decisive factor in determining the extent of the live-stock enterprise. This fact has become clearly apparent during the recent depression of prices for live stock and live-stock produce. The reduction in live stock would have been much greater in many cases if the necessity for manure had not fixed a limit upon the cutting-down of stock.

As a source of farm income pig-farming ranks second to cattle. Pig-farming is based on a great vegetable production of carbohydrates in arable farming. In the east pigs are mainly fed on potatoes, whilst farther west potatoes are replaced to a greater extent by grain. In the smallest holdings the household leavings play an important role.

In general the pig enterprise depends upon foodstuffs grown on the home farm. The highly developed pig-fattening enterprise which has grown up in peasant farms of the north-west forms an exception, for these farms rely on commercial foodstuffs, chiefly grain.

Compared with cattle and pigs, sheep-farming is of minor importance. Yet only in the last century sheep formed the main branch of live-stock farming in Germany. The expansion of wool production in the overseas countries, and particularly the development of cotton, caused a rapid decline of sheep-farming in Germany. Sheep are still to be found in fairly large numbers, however, in the root-crop farms of central Germany and in the grain farms of the east.

Poultry has only in exceptional cases grown to be a prominent feature of German farms. Poultry-keeping generally depends upon the leavings of the household and the farm in general.

So much for soil utilization and live-stock enterprise.

In what units does the agricultural production of Germany take place? Several million farms of the most different type take part in the exploitation of our soil. The main contingent is formed by the peasant holdings. We classify as peasant holding a farm in which the operator and his family furnish the main labour supply. In the large peasant farms hired labour is supplied by labourers living in the household of the peasant. In smaller holdings the labour requirements are often not sufficient to provide full employment for all members of the operator's family.

A characteristic of the German peasant, as of the peasant of any country, is his peculiar psychological attitude towards his farm. He does not primarily regard the farm as a means of earning money; his work is to him not a purely economic process; his labour on the land arises from an inner calling. He feels himself closely knitted to his soil. These ties of feeling alone afford a sufficient explanation of the tenacious hold of the peasant upon his land and explain his clinging to his farm in spite of all difficulties and privations, and also explain the peasants' fight for the farm even when life outside agriculture would offer him an easier and more comfortable existence. This mental attitude is the cause of a whole series of phenomena which would remain inexplicable when viewed from a merely rational or economic standpoint. Herein also lies the fundamental difference between the peasant and the farmer type of agriculturalist who looks upon agriculture simply as an economic enterprise.

Of the roughly 5 million farms in Germany 99·6 per cent. are peasant holdings. Of these approximately 3 million are very small holdings not big enough to provide labour for the whole family, so that part of the family is dependent on subsidiary sources of income in the industries, in forestry or other trades. About 18,600 are big farms of over 100 ha. in size (250 acres). Even at this comparatively small size intensively worked farms have all features of the typical big farm.

The typical difference between the peasant farm and the big farm lies in the labour organization.

The main distinguishing feature of the peasant holding in contrast to the big farm is *family* labour and also a notably higher supply of labour available. This last feature at least applies to small and middle-sized peasant holdings, which are by far the most numerous. They are much more highly populated than big farms. Just a few figures: the number of people employed per 100 hectares (250 acres):

on holdings of	2–5	hectares:	94·4
	5–10	„	56·6
	200–500	„	20·2
	over 1,000	„	17·8

These figures show a tremendous drop in the number of people employed per unit of land with increasing size of farm. This is the main external difference between the size groups of holdings, out of which all other distinguishing features can be deduced.

Another such difference between peasant farm and big farm is the live-stock capacity. Under equal conditions peasant farms are always more heavily stocked, and this to an increasing degree, the smaller the holding. The reason lies in the combination of a small acreage with a high supply of labour, which leads to the expansion of the live-stock enterprise as an outlet for the abundant labour supply seeking employment. That is why live-stock density increases rapidly in correlation to the diminishing size of the holding. It is mainly in live-stock farming, apart from vegetable and garden crops, that the peasant holding is superior to the large farm.

In the operation of great expanses of arable land and in the cultivation of crops which can be handled and tended with a certain application of machinery, for instance grain, the technical advantages of the bigger unit, the large farm, become apparent.

These fundamental distinctions between peasant holdings and big farms have also affected the regional distribution of the various-sized farms over the country.

The regional distribution of the big farms is of peculiar interest owing to the causes which have led to this distribution. The map[1] shows you this distribution. Each dot represents a farm with over 200 hectares (500 acres) agriculturally utilized land. The approximately 18,600 big farms which operate roughly 20 per cent. of our

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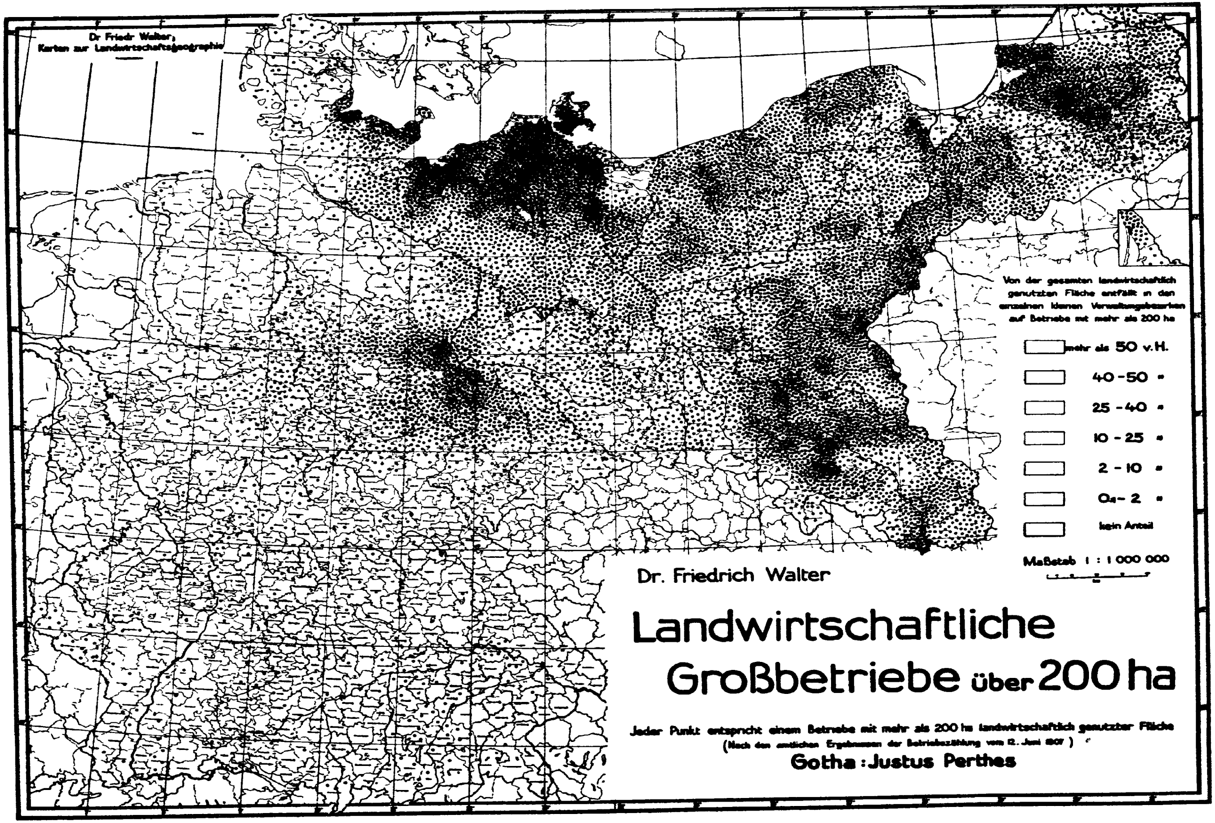
[1] Map on p. 17.


Dr Friedr Walter,
Karten zur Landwirtschaftsgeographie
Von der gesamten landwirtschaftlich genutzten Fläche entfällt in den einzelnen kleinen Verwaltungsbezirken auf Betriebe mit mehr als 200 ha
mehr als 50 v. H.
40 - 50 "
25 - 40 "
10 - 25 "
2 - 10 "
O₀₁ - 2 "
kein Anteil
Maßstab 1 : 1 000 000
Dr. Friedrich Walter
Landwirtschaftliche Großbetriebe über 200 ha
Jeder Punkt entspricht einem Betriebe mit mehr als 200 ha landwirtschaftlich genutzter Fläche
(Nach den amtlichen Ergebnissen der Betriebszählung vom 12. Juni 1907)
Gotha : Justus Perthes

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farm land are located mainly in eastern districts. The farther we penetrate into central, west, and south-west Germany, the greater grows the preponderance of the typical peasant holding. Only in the fertile arable land in the loess belt of central Germany do we meet with a greater accumulation of large farms.

The development of big farm units out of great land properties is not solely the result of mere economic causes. It is far more the outcome of political causes within the states. No doubt the fact that big farms are so very scarce in southern and western parts is to a certain extent a consequence of the natural conditions of these parts. In mountainous districts there is no scope for the big farm, except in the form of the cattle ranch, which is a type unknown in Germany. Hilly country is typical peasant country in Germany because it lends itself to the development of live-stock farming in a form adapted to the nature of the peasant holding. But also in those parts of the south and the west which are well suited for arable farming, big farms have either never developed or they have always been almost completely reabsorbed by the peasant farmer.

The highly developed economic situation in these districts with remarkably good markets for live stock and live-stock produce near at hand has always favoured peasant farming, and has enabled the peasant to keep the big farmer out of the field of competition.

The wide field for peasant live-stock farming is therefore the one reason for the superiority of the small holding in these districts. Another is the scope these parts, favoured alike by the vicinity of big markets and by a mild climate, offer to the cultivation of vegetable, fruit, and garden products. Such conditions have caused the growth of the smallest holdings in south-west Germany, in the Rhineland, in the industrial areas, and around the large cities. The minimum size-limit of the holding is further strongly influenced by the facilities of earning subsidiary income outside the farm. Thus we note a marked decline in the size of the holdings in all highly industrialized areas, where a part of the rural population can supplement agricultural income by wages earned in factories or in other trades. Wherever the prevailing form of inheritance has been the division of the farm amongst the heirs, these tendencies have led to a widespread growth of the very smallest holdings. Here it is partly the case that the peasant finds additional income in other trades, but often he has become an industrial worker with a diminutive agricultural holding providing him with household necessities. These smallest holdings, called parcel holdings, are extremely numerous in the south and south-west. Particularly in Württemberg agriculture is extremely closely linked up with the industries. In consequence the country is to a high degree economically sound and crisis-proof with a healthy and efficient population.

Also in north-west Germany with its favourable conditions for grassland as a basis for live-stock farming the peasant holding has completely held its own against the encroachments of the big farm. But because of the limitations of arable farming quite a different type of peasant holding has evolved here. In these farms live stock is the prominent feature, and greater size is necessary to ensure economic independency. So these provinces are peasant districts with a strong preponderance of the larger peasant holdings.

Now a few words concerning the political and economic factors which led to the evolution of big farms out of big land properties in the east of Germany. The land which is now operated in big units was in past centuries mainly tilled in small holdings. Partly it was then already in the hand of big landowners, but in this case it was cultivated in family farms of vassals and peasants who owed service obligations to the landlord, by reason of which they also operated the manor farm of minor size. Gradually the peasant holdings were absorbed and big farms evolved. This process was greatly facilitated originally by the unequal division of political power, by the prerogatives of the landlord, and later it was stimulated by the introduction of agricultural machinery. This gradual passing-over of the land out of the hand of the peasant to that of the big farmer-landowner was especially pronounced wherever natural conditions favoured grain cultivation in arable farming or wherever sheep-farming gained importance.

The combination of grain-growing and sheep-farming in connexion with the availability of cheap labour owing to the exercise of political prerogatives formed the basis for the growth of the big farms in the east. Later, after the division of political rights between the peasant and the landowner had been readjusted, mechanization and the introduction of cheap seasonal labour, mainly of foreign origin, helped the big farms to retain their dominant position. The availability of seasonal labour was also a decisive factor in the expansion of sugar-beet and potato cultivation on big farms.

As a result of the expansive tendencies of the big farm during the last centuries, many peasant holdings were annexed by the big landowners and the peasants evicted. The peasant class would have been still further decimated than actually was the case had not the state, notably the kings of Prussia, checked by legislation the process of turning the peasants off their farms. With a clear perception of the value of a sound and efficient peasant population, the Prussian kings attempted to prevent the destruction of peasant holdings on the part of the big landowners—often only with partial success. However, the value and also the effect of these measures can be gauged by comparing western Pomerania with other parts of eastern Germany. In western Pomerania a great accumulation of big farms is to be found around the towns of Stralsund, Greifswald, and on the Isle of Rügen. Here these farms occupy over 60 per cent. of the land. This excessive proportion of big farms is partly due to the fact that the legislative measures of the Prussian kings could not be brought into force in this province, as it was at that time under Swedish rule. In free and unfettered economic competition such a high percentage of big farms would certainly never have evolved in eastern Germany. The proportion of peasant holdings to big farms would more closely approach conditions in southern and western Germany.

A rectification of the ratio of big farms and peasant holdings is an urgent necessity for a great number of economic reasons.

For comparison of German agriculture with that of eastern or overseas countries a few figures on capital investment and receipts may be of interest.

Climatic conditions, the high degree of intensity, the standard of life of the population, and above all the small size of the holdings—all alike combine to tend towards a high outlay of building and machinery capital per hectare. This outlay is particularly heavy in the small holdings of south and south-west Germany. Building investments of 2,000 to 3,000 marks per hectare in small holdings, of 1,000 marks in middle-sized holdings, and of 600 marks in big farms are by no means exceptional. This incurs an onerous additional burden as against overseas countries, and handicaps us in competition. The outlay of capital in machinery is also very great, in spite of the fact that mechanization is not remarkably developed in German farming. This is, again, mainly a consequence of the low average size of the holding, which entails a very imperfect utilization of the machinery plant. The possibilities of mechanization are much more strictly limited than in overseas countries. Our farming in small holdings demands an intensive utilization of the soil, which is only possible by a system embracing a great variety of crops. Such a complex type of mixed farming, practised under our soil and climatic conditions, renders such extreme mechanization as is attained in the North American and Canadian wheat belt quite impossible. In view of the dense population in Germany and the urgent employment problem, a development of mechanization on the same lines as in those countries is not to be expected in the near future. The employment of machinery for supplanting animal draught power, that is to say, the use of tractors, is also restricted, because in small holdings haulage demands a certain minimum of draught animals, and if these are fully made use of, there remains but little scope for the tractor.

Being densely populated and heavily burdened with capital investments, our farms necessarily require a high cash turnover. In spite of the depression which has been most severely felt in German farming in the past few years, the gross cash receipts of the big farms still range from 150 to 800 marks per hectare, and in peasant farms from the lower figure up to 1,000 marks and even higher. The main income factor is live stock and live-stock produce, which often supplies 80, 90, or even 100 per cent. of the total receipts on peasant holdings. In root-crop farms and in bigger farms in general, the receipts from produce of the arable land become of greater importance and furnish 40 to 60 per cent. of the total receipts. They reached 70 per cent. and more in recent years as a result of the great drop in prices of live stock and live-stock produce.

As to expenditure, wages are the weightiest item in all big farms and also on large peasant holdings. Here wages form 30–50 per cent. of the total expenditure. The next important items are fertilizers and concentrated feeds, finally upkeep of equipment and buildings, taxes, and various other items.

What is the service of German agriculture, and what part does it play in the entire economic system of the country? In the last century Germany was still an agrarian country and exported agricultural products. The enormous expansion of industrialization, which made it possible to retain the rapidly increasing population within the country, turned Germany into an industrial country, and agriculture was soon unable to satisfy the continually increasing food requirements of the population. Before the war this led to steadily growing imports of agricultural products, mainly foodstuffs for our live stock. This development was abruptly cut off by the outbreak of the war. After the war, German agriculture entered into a tenacious struggle to regain independence of food supplies for the German nation. Increasing production and decreasing consumption after the years of deceptive would-be boom both worked towards the same end. Last year, partly as the result of a sequence of good harvests, food requirements were satisfied by home production in many important items. Our great output of carbohydrates fully satisfied the demand for bread, potatoes, and sugar; our highly developed live-stock farming supplied sufficient quantities of meat and milk. It is still, however, difficult to provide the necessary protein for our live stock and to meet the demands for fat substances. The prolific protein-producing and oleiferous plants are scarcely adaptable to the climate of moderate zones. The protein and oleiferous plants of our climate have been so neglected by breeding science and in the development of the technique of cultivation that they can hardly compete with our grain and root-crops. This situation presents at the moment and in the future grave problems for Germany. If complete self-support in food is to be attempted with the prospect of success, our production must be shifted from such objects as are produced in sufficient or surplus quantities (carbohydrates in plant production, meat in animal production) to those items which are deficient: protein and fat. This object is aimed at in the Programme of the Imperial Government, and a solution is being attempted.

Not only a readjustment of our production is necessary, but also a general increase in output with the aim of complete self-sufficiency in food. This is directly necessitated by our international financial position.

This programme incurs the necessity of state influence upon marketing, and may also in some cases require state direction in production. The situation has led Germany, just as many other countries, to a separation from the world markets.

For this reason also opponents of state handling of economics must admit that state influence upon economy is a plain necessity. It is no longer a debatable question whether or no the state should manipulate economics. The only question is, how far should the influence of the state extend, and what are the most effective and efficient means of exercising this influence?

However, at the heart of all agricultural measures in Germany stands the systematic promotion and expansion of the peasant population, for we are convinced that the peasant class must form the bed-rock of sound and prosperous racial and national development. This conviction implies a systematic furtherance of the peasant holding, regardless of all shortcomings of the small farm in the utilization of human and animal labour and capital investment, if viewed merely from the standpoint of rational economics.

The aim of a truly beneficial agrarian policy cannot be solely the greatest economic efficiency in a technocratic sense, but far more the welfare of a healthy rural population, and that is impossible without a prosperous peasantry. Only when this prime object is achieved can the highest technical efficiency in peasant farming be the next aim. And only the attainment of both aims will ensure a prosperous and satisfactory national existence.

THE WORLD ECONOMIC CRISIS

M. SERING

Berlin University

THE Executive Committee have instructed me for to-day, as they did four years ago, to give an introductory speech on the world agrarian crisis. Unfortunately this subject is still of very immediate interest. An unprecedented fall in prices for agricultural products and raw materials is still combined with an industrial, credit, and currency crisis. There is an intimate connexion between all these difficulties, which I cannot and must not break up in my account.

It is true, since last year, certain tendencies towards an upward movement have made their appearance, but the forces making for recovery are effective only in a number of countries—particularly in England and in other countries of the Sterling Bloc—where a depreciation of the currency has taken place. Plans for creating employment, which the United States and Germany have embarked upon with great energy, have also had a stimulating effect on the economic life of the two countries. The efforts of the American Government to get rid of unsaleable stocks by reduction of acreage have been greatly assisted by the all too-bright sunshine of the present year. It seems that, in this way, unsaleable stocks will lose their menacing character.

But how great the economic distress is which still afflicts civilized countries is shown by the figures for unemployment. These have indeed fallen, but including the United States still amount to more than 30 millions. Thus, if we include dependants, there are still 100 million people who have to be content with the pittance provided by public assistance. And so we have cause enough to reflect again on the world-wide economic crisis. I will first attempt to unravel its most important causes in order to obtain viewpoints from which we can seek to combat it, and this is the chief subject of our deliberations—as it was four years ago.

At that time few of us believed that a shrinkage of the inter-state exchange of goods and reorganization of the traditional legal and economic order would result from the struggle to overcome the crisis. These things suggest to us the idea that we may be at the beginning of a new age in social and economic history. I will reserve until later a few remarks on this subject. Individual countries have been affected to a varying extent by the economic depression. But the world crisis is uniform in so far as all its phenomena have their roots in the world war. Every great war which has lasted a long time has upset economic equilibrium.

The immediate devastations wrought by the War were, it is true, repaired by about the year 1926. Also the extensive transplantations within the German frontiers, which the loss of territory and natural resources made necessary, were completed by the year 1928.

But a serious state of tension has remained throughout the whole of Europe, and the new distribution of power and wealth resulting from the War waged by the allied world empires against the countries of Central Europe has also remained. I have described these things in greater detail in the report which has been put into your hands, and I will only remind you that Germany, by the loss of an eighth of her territory and of all her colonies, has become the poorest industrial country in the world as regards raw materials. Finally war, reparation, and armament debts have remained. A new grouping of creditor and debtor states has come about, and this change has become highly important for the economic history of the post-War period. Here we have the explanation of the immediate causes of the price crisis. In brief, these causes lie in the fact that the great capital powers embarked on an over-rapid expansion of agricultural and mineral production, while at the same time the purchasing power of densely populated Central Europe had been seriously diminished by the War and its results.

Before the War all densely populated industrial countries of Europe had been providers of capital for sparsely populated agrarian and raw-material countries, which were poor in capital. At the head of the creditor states, according to the amount of money lent, stood England, France, and Germany. The War eliminated Germany from the ranks of these creditor states and brought in the United States. The War itself, the great confiscations of German property—especially all available German foreign investments—and tributes levied from 1924 to 1931 have put Germany in the anomalous state of being an industrial country very poor in capital. Whilst Germany before the War had claims abroad to the extent of 20–5 thousand million gold marks, in July 1931, at the time of the great bank crisis, she had a debt to foreign countries amounting to 29 thousand million Reichsmarks.

The United States, on the other hand, which before the War had been in debt to Europe, was, by her deliveries of goods during the War and her large share in the financing of the War, not only freed of debts but put in possession of big foreign holdings. These were still further greatly increased by the surplus on the balance of payments during the 1920's. In the year 1928, about the highest point reached by these loans, these foreign holdings, together with the political claims which had generously been reduced by about a half, i.e. to 6 thousand million dollars, amounted to 14·5–15·5 thousand million dollars. In the same year England had, with 20 thousand million dollars, reached approximately the pre-war level of her claims abroad. Finally France has, after the war and the loss of her great Russian loan, kept her long-term loans to foreign countries within narrow limits, but since the stabilization of the franc in 1926–8 her influence on international markets has been all the stronger through her short-term loans.

Foreign claims before the War had arisen, according to all the rules, from productive investments. Corresponding to the utilization value of the lent capital, the rate of interest rose step by step from the centres of capital in Europe to the periphery of cultivation in east and west. The rate of interest was: in England and Germany 3–4 per cent., in the east of North America 5–6 per cent., but in the west up to 10 per cent. and more.

But the War reversed the situation as regards the scale of interest rates. The yield on fixed interest-bearing securities at the end of 1931 was: in the United States 4·27 per cent., in England 4·83 per cent., in France 3·79 per cent., in Germany it was no less than 9 per cent. The loans which flowed into Germany and the states on her eastern border are for the greater part to be considered as unproductive. Of the loans granted to Germany, 10·3 thousand million Reichsmarks (according to the Layton Report) were simply handed on as tribute. The loans also which, whilst contributing to the improvement of the productive process, had an interest greater than the yield or surplus yield obtainable with the help of the loan, were to that extent unproductive. According to the well-known Thünen Rule, every added bit of capital invested in an undertaking or business or in agriculture yields less in proportion than that previously invested. Thus, in old civilized countries, with a highly intensive economy, yields are less than in new countries. The whole apparatus of production in western Europe was before the War accommodated to an interest rate of 4 per cent. If the interest on foreign capital was 6–7 per cent., and if the private debtor therefore had to pay more than double the pre-war interest, the additional amount, apart from exceptional circumstances, could not be obtained. Personal credit cost the German farmer, before the catastrophe of July 1931, in the east 12–18 per cent., in the west and south 10–14 per cent.; mortgages bore in the east and west, including amortization and incidental costs, 9½–10 per cent.

Since that catastrophe the granting of mortgages has broken down altogether. Whoever takes up loans at such interest rates will never get out of debt again; he will always have to borrow afresh in order to make his yearly payments. The yield of his work has to go as tribute to his creditors, and what is here true of the individual farmer applies also on the large scale to the loans as a whole which have flowed into the country. They have to be paid for from wages and salaries. In so far, therefore, as they exceeded the old normal rate of interest, they, together with the tributes, produced simply a fall of purchasing power.

Our eastern small-peasant neighbour states are in a similar position to ourselves; with them, too, a large part of the high-interest credits received are unproductive, because they were used for armament purposes. And so a Central European block of impoverished nations with 180 million inhabitants stands over against the victorious creditor nations, rich in capital. And to these we must add the smaller countries rich in capital, as Switzerland, Holland, Belgium, and Sweden, which were also enriched by the war. Russia takes no more part in the international circulation of capital.

The spirit and manner in which the available capital resources of this creditor block were administered were determined to a quite considerable extent by the big banks in the United States. They set the pace of economic development for the whole world, and that pace was wild enough. On the New York stock exchange and other American stock exchanges in 1920–30 there were no less than 57 thousand million dollars in bonds and shares issued for America and 9·7 thousand million issued for abroad. In his brilliant pamphlet *America Must Choose*,[1] which is as clever as it is frank, the Secretary of Agriculture, Henry A. Wallace, writes: 'When we embarked on our terrific post-war expansion of foreign loans, we did not plan. We plunged in blindly, and soon any reasonable observer could predict that the whole thing was bound to blow up. In contrast to England's policy after the Napoleonic Wars, our own adventure was only from the short-time profit consideration.' Every word of that is certainly true. But it must be emphasized that the main direction of internal investment in North America after the war was determined by *measures of planning*. The United States carried out after the War the greatest road-making scheme in the history of the world. According to a uniform plan, and applying legal measures of compulsion, the federal, state, and district authorities covered an area the size of Europe with a network of the very best concrete and macadam roads. Federal and state authorities spent between 1921 and 1932 altogether 13 thousand million dollars on this scheme.[2] From this foundation the American automobile industry with its auxiliary trades became the greatest industry in the continent. The whole state of things as regards the distribution of the population was completely changed, and just at the highest peak of the boom and in defiance of all the capitalist rules of the game enormous works of building were undertaken.

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[1] Henry A. Wallace, Secretary of Agriculture, *America Must Choose*, New York, 1934, p. 2.

Economic planning, therefore, bears a fair amount of the blame for the serious economic confusion arising from the investment policy. The highest profits could be obtained from the loan capital in the new industries and in the opening up of virgin country with the help of a whole series of new technical processes. Such new technical achievements were—to mention the most important ones known to you all—the tractor and the 'combine-harvester' with which it was possible almost without men and horses to get the best grain from the great semi-arid districts in the centre of the North American continent, in Australia, in North Africa, and in Russia. You all know that new mechanical processes have made the production of cotton and other fabric materials cheaper. The flotation process and electrolysis for the winning of ores from deposits which had hitherto been considered too poor and remote to be worked must also be mentioned.

American investments and American enterprise took possession of the whole of the Western Hemisphere from Pole to Pole. Also in eastern Asia and even in Australia the Americans pushed back British finance capital and British trade.

In those wide districts, on the other hand, whose most important gateway is the Suez Canal, Europe has, under the leadership of Great Britain, maintained its dominant economic and political position and strengthened that position by means of investments.

The result was that the production from the land of foodstuffs and industrial raw materials was precipitately increased.

But capital also saw to the creation of purchasing power in the Central European countries which has been reduced to poverty by war and the payments of tribute.

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[2] G. Edw. Grant Buckland, President of the Railroad Credit Corporation (*Proceedings of the Academy of Political Science*, Jan. 1933).

By far the broadest stream of foreign credit flowed from 1924 to 1929 to Germany. It was this stream of credit which made possible the transfer at that time of the German tribute fixed by the Dawes Plan and in addition made it possible for starving Germany to import very large quantities of goods. The first of the diagrams before you (Figure 1) shows the effect of these things on the development of prices. The top line gives us wholesale prices including finished goods in the United States. It keeps fairly horizontal up to 1929 and indicates the fact that although costs of production were lowered, prices of goods for mass consumption were deliberately kept at a uniform level. It was imagined that a means had thus been found of making prosperity permanent by an ever-increasing mass-purchasing power.

The second curve shows the world trade prices for the most important agrarian products: wheat, cotton, sugar, rubber, silk, coffee, tea. Here we observe that up to 1929 there was a considerable fall in prices compared with general wholesale prices. Agriculture lacked price-agreements and cartels, by means of which industrial prices are systematically controlled. The gradual fall in prices of agrarian products up to the year 1928–9 expresses the genuine fall in costs of production in the most favoured producing districts and can, to that extent, be regarded as a permanent phenomenon.

The third curve shows that up to about the year 1928 the accumulation of stocks was rising slowly. But demand could not keep up with the rate of increase of production to a sufficient extent; for the increase of population was slowing down, and in time of increasing prosperity consumption habits changed, particularly through a lowering of bread consumption.

The whole situation was changed abruptly after the middle of 1929. In America the industrial boom which had developed almost in a straight line since 1922 came to a natural end in 1929, after great excesses of stock-exchange speculation, when the great network of roads had been completed and every family provided with a car. It might well have been possible to mitigate the consequences of the boom, but no economic planning could have prevented it from taking its natural course.

The outbreak of the American industrial crisis involved all the rest of the world. In Germany alone the crisis had already begun, when, from 1928, American credits had begun to run dry because capital flowed to the New York stock exchange during the boom. But the industrial crisis would have carried with it its own remedy if it had not coincided with the outbreak of the most serious agrarian and raw material crisis in history.

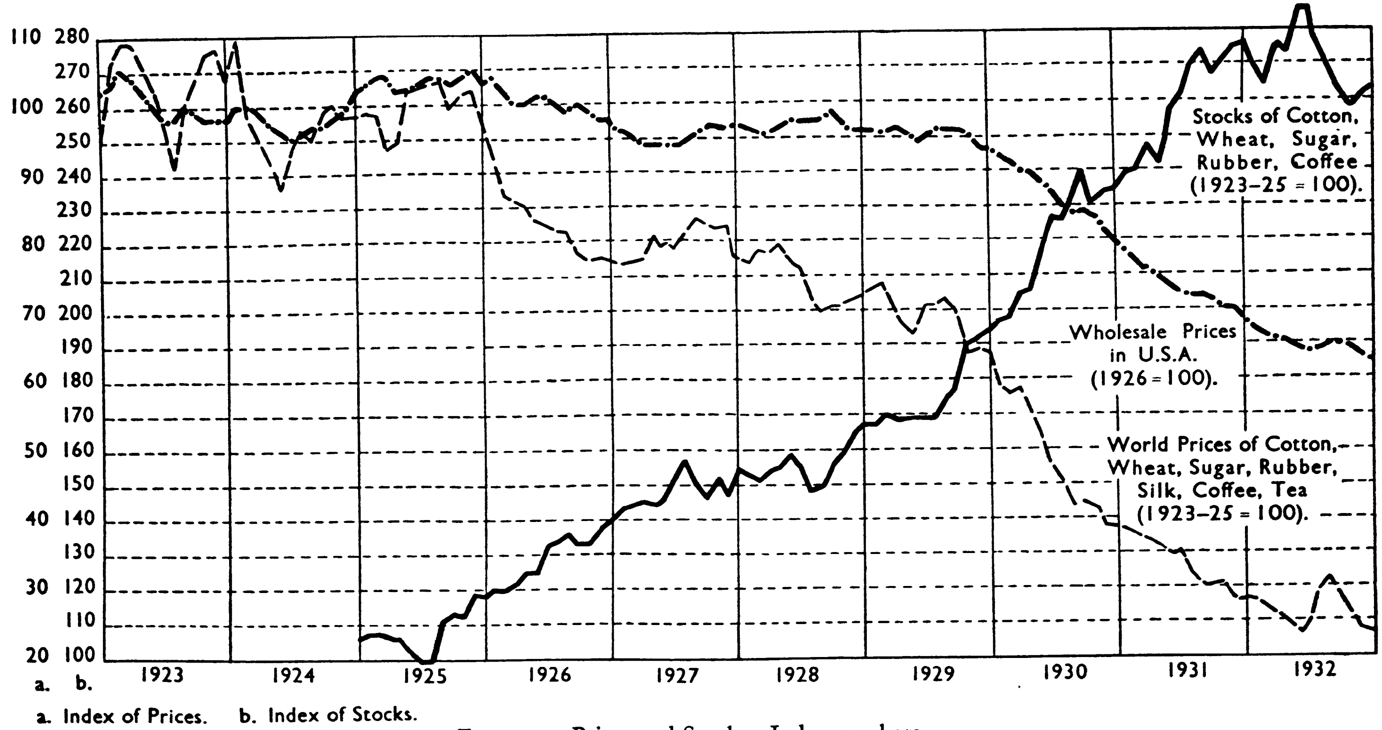

FIGURE 1. Prices and Stocks. Index numbers.

*

The curve shows how agrarian prices fell rapidly on the world markets from the middle of 1929, and how unsaleable stocks accumulated in enormous quantities. Prices fell below production costs of the most-favoured production-districts, so that since 1931 there has been terrible distress among the farmers of export countries, also among wheat farmers in newly opened-up semi-arid districts. They could no longer pay running costs and much less interest on credits which they had taken up. The whole of Central and South America went bankrupt. The fall in prices was therefore produced by over-extension of acreage; the United States, for example, had from 1925 to 1929 increased their wheat acreage by 10·9 million acres, i.e. an area double that which Germany has in wheat in 1934. In addition to this there came, as is well known, the further impetus of the record harvest of 1928. But the enormous supply coincided secondly with a shrinkage of purchasing power and demand on the part of great consuming masses. The purchasing power of the 65 million Germans suddenly and simultaneously shrank as a result of the cessation of new foreign credits and the terminations of old ones. There began simultaneously a systematic protection on the part of all import countries against agricultural products, the prices of which had lost all connexion with production costs. Defensive measures taken generally against cut prices of agrarian countries were the beginning of a process which meant nothing less than the breakdown of capitalist world trade.

No nation in the world could allow its country population to be ruined by a price revolution which made impossible any reasonable management. All those relief measures arose which are to be discussed at this Conference: tariffs, quotas, monopolization of foreign trade, 'linked purchasing' regulations, and other measures of internal planning. The result was that in importing countries, agricultural production, especially of wheat, rose sharply, whilst in the United States and other exporting countries unsaleable stocks increased to a disastrous extent. The wheat acreage on the continent of Europe, apart from Russia and the Danube countries, rose between 1928 and 1933 from 51·8 to 57·3 million acres, and its yield from 1 to 1·4 million bushels.

But to set up an emergency system of agricultural protection was not considered sufficient; a policy rather was pursued which made the export of industrial products more and more difficult. This policy was pursued by the old industrial countries which had a division of labour and a lively exchange of goods among themselves. One reason for England to extend her restrictions on German competition, which had been set up in the war atmosphere, to a system of industrial high protection was the fact that Germany was forced, when American credits suddenly came to an end in 1928–9, to pay the tributes from her own resources. She had to resolve to cut down consumption by means of a hard process of deflation, to limit imports, and to expand exports. Chancellor Brüning was convinced that nothing else could persuade the world of the impossibility of German tribute payments.

The graph on p. 32 (Figure 2) shows to what extent the German imports of materials and foodstuffs were cut down from 1929 and how the big surplus of imports was at one blow transformed into a considerable surplus of exports from which tribute and interest could be paid. This happened while German exports were falling and in the midst of a general crisis in the international exchange of goods which diminished the value of world trade between 1928 and the end of 1931 by almost half. It was a terrific achievement. It was paid for by the impoverishment of the German worker and by vast unemployment in Germany, which also caused a shrinkage of the internal market and caused prices for high-quality products of German peasantry to fall precipitately. Germany's enforced famine exports called forth everywhere defensive forces. As in England, so in other countries, tariff walls against foreign industrial goods were set up.

But what had still more serious results was the fact that the great creditor countries, headed by the United States, had for a long time led the way in keeping out industrial goods. They demanded the payment of interest and amortization on their loans, but blocked at the same time the only way by which the debtors could fulfil their obligations. They closed their frontiers not only to the debtors' services and goods, but, like Australia and other new countries, closed also their frontiers to the surplus of population. Far be it from me to criticize the immigration restrictions. But the political economist must call attention to the importance of Italian and Spanish emigration for the balance of payments of the emigrants' native countries. The closing of the creditor countries' frontiers to the goods and services of their debtors is perhaps the most contradictory phenomenon of all the crisis years, years certainly not poor in economic impossibilities. America continued to keep to this typical debtor's idea of striving to maintain an export surplus when she became, after the War, the great creditor of Europe. In the year 1922 was the first, in 1930 the second, raising of American industrial tariffs.

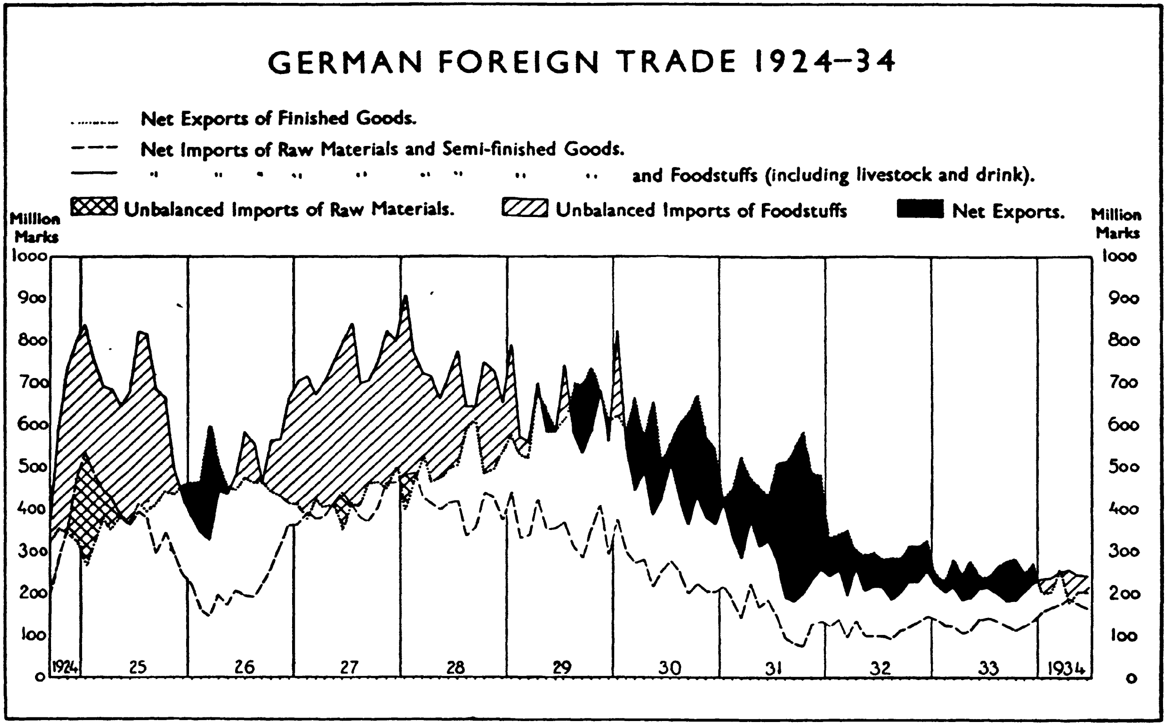
GERMAN FOREIGN TRADE 1924–34
Net Exports of Finished Goods.
Net Imports of Raw Materials and Semi-finished Goods.
" " " " " " " " and Foodstuffs (including livestock and drink).
Unbalanced Imports of Raw Materials.
Unbalanced Imports of Foodstuffs
Net Exports.
Million Marks
1000
900
800
700
600
500
400
300
200
100
0
1924
25
26
27
28
29
30
31
32
33
1934

FIGURE 2.

In 1926 representatives of American economics from Columbia and Princeton Universities called attention to this anomaly in vain, and their efforts to obtain the cancellation of political debts remained without success. Similarly, in the year 1924, the attempt on the part of the 'Verein für Sozialpolitik' (Society for Social Politics) in Germany to make way for freer trade in the whole world was a failure. We are still told that we wished to sacrifice the German peasants to the free-trade ideal, but in reality what we wanted to do at that time, when the German masses were so impoverished that they could hardly absorb the products of home agriculture, was to stimulate German exports in order to increase the purchasing power of the German industrial population and thus to procure good prices for high-standard farm products. We wished to prevent the collapse of world trade on which Germany, more than the other industrial countries, depends.

In the year 1930 import restrictions in France were also greatly intensified once more. The example of the United States infected the great agricultural and raw material countries. The strong protection which the latter had introduced for their industries which had arisen in the War had to be paid for, as in the United States, by the farmer. The scissors formed by industrial prices, which had been maintained above the level of the world market, and agricultural prices, which were fixed by the world market, opened wider and wider and made the farmers completely bankrupt.

The closing of creditor countries to imports led to a more rapid shifting of the stocks of gold from debtor countries to the United States and France.

This concentration of gold compelled debtor states to pursue a more and more extreme policy of deflation and deprived them of all their currency reserves. This was the state of things from which the credit crisis of 1931 arose. From 1928, as the long-term international loans gradually diminished, short-term money, particularly the French, had become increasingly important. If these short-term loans were suddenly called in, either from lack of confidence in the currency of the debtor state or from political reasons, a complete collapse became inevitable because the credit panic which had started in one place quickly ran through the whole chain of credit relations. As is well known, the chain broke first at its weakest point: in Vienna (May 1931). The panic wave advanced by way of Berlin to London and compelled England to leave the gold standard.

What happened here under compulsion was done by the United States in 1933 of her own free will. She devaluated the dollar, chiefly to relieve the farmer of the burden of debt which had become oppressive after the outbreak of the price crisis.

Only a handful of states have been able to maintain the gold parity of their currencies in the world crisis. These are the countries of the gold bloc—France, Holland, Belgium, Switzerland, Italy, and Poland, and, with great difficulty, Germany. But of these also, only two, Holland and Switzerland, have been able to maintain *pre-War parity* up to the present time.

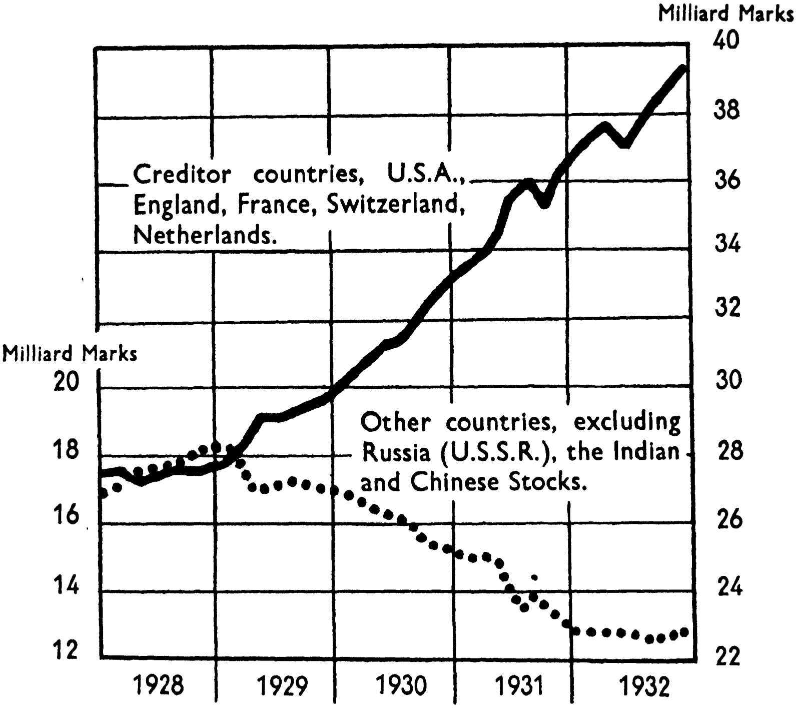

FIGURE 3. The Gold Stocks of five Creditor-countries and the rest of the World. 1928 to 1932.

Devaluations of currency have undoubtedly, in most devaluation countries, slowed down the fall in prices and, in some, have led to a not inconsiderable rise in prices. But, on the other hand, they have intensified the pressure on the prices in the gold countries, and have compelled the latter to protect their balance of payments by means of new trade restrictions and the cutting down of consumption. Thus the currency chaos has resulted not only in increased insecurity of the international exchange of goods, but also, for a part of world trade, in further shrinkage.

The effect of all these facts can be expressed by a single figure. In 1933 the value of world trade was only a little over one-third of its value in 1929, its volume about two-thirds that of 1929.

SUMMARY

The fundamental facts which have upset the economic equilibrium of the world and have brought with them all the other difficulties were: (1) the Peace Treaties, which were dictated by the mercantilist spirit and contempt for human beings, and which broke up the highly developed economy of a great people, and compelled it to take up debts, the interest of which it had to pay from the wages of work; (2) capitalist anarchy, which, at the time of improving trade, planlessly invested large capital sums where there was a prospect of monetary profit, and produced a chaotic overproduction of many commodities. In the time of depression this anarchic system just as planlessly withdrew the capital sums in order to bury them again in vaults in the form of paper notes or yellow metal.

CONCLUSION

The general revulsion from a world economy directed by private capitalism means a return to the idea of a closed national economy which was dominant until the nineteenth century. In such a system the authority of the state sets definite limits to the powers of capital and exercises a strong influence on prices and the circulation of goods and capital. If this movement continues, a new age is dawning in the history of the civilized world. In this movement it is not merely a matter of a fight against the economic distress of the moment. Ever wider circles are militating against the view prevailing hitherto, which has seen in strict economic rationalism, as enforced by competitive free economy, the guiding light of the economic and social order. Wide circles feel the insecurity, the rush and scramble of the competitive system, to be unworthy of human beings, because those values are thereby lost which alone make their life worth living. Emphasis is being laid on the economic, or rather supra-economic, importance of the family economy, which provides a secure, even if modest, living, and holds aloft the moral goods handed down from ancestors.

The coming order is at once nationalist and planned or, in this sense, socialistic. It is nationalist because the special danger to agriculture in the present crisis has everywhere, except in Russia, awakened the realization that the agricultural population is the foundation of the whole social structure, as producer of the means of existence, as a physical reserve of force for the whole people, and as the guardian of all those virtues which are rooted in the family system. Everywhere, even in England, their preservation is recognized to be the fundamental aim of national economic policy, and this task has been put before all others. This is an aspect which gives the new movement a conservative character, and is to be regarded as permanent. It will of necessity strongly affect the international division of labour, and diminish the stream of commodities, which has hitherto given the direction to the exchange between continents, the exchange of surpluses yielded by the soil of spacious and thinly populated countries for the industrial products of thickly populated, old countries.

Most countries have, more or less of necessity and often without even noticing it, come into the path of socialist planning. Most of them, in the fight against the economic crisis, have groped their way from one emergency measure to another. As soon as one hole was patched up another opened, and soon the need was realized of finding a permanent solution. In other countries, particularly in Germany, socialistic ideas have consciously been made fundamental in economic policy, particularly in the sphere of agrarian markets. Already practically the whole of the agrarian market system has been more or less socialized. In the meanwhile, the remedial measures taken in the United States, which were introduced not because of any principle but to deal with the bad effects of a planless credit and agrarian expansion, have made just as great a breach in the traditional economic order. In America it is well known that crops and animal production have been systematically restricted, and this regulation calls also for a permanent solution. Secretary of Agriculture Wallace considers a 'social machinery for crop control' essential in order to reduce acreage and prevent excessive expansion when the trade position improves. Here, as he convincingly shows, there is an intimate connexion between internal and external economic policy.

In fact, internal measures of planning will always make necessary parallel measures in external trade. The action of one country compels the other country, connected closely with the first by trade, to go the same way. Whether the national planning schemes include the whole national economy or only individual branches, these schemes must be brought into harmony with one another.

Hardly anywhere do responsible people still believe in complete self-sufficiency. World trade will, therefore, in any case continue in the sense that the trade relations of the states concerned will be regulated to a considerable degree.

It is well known that it has been easiest to come to agreements on the staple commodities, such as grain, rubber, coffee, sugar, &c. But international trade can never be restricted to the exchange of such uniform mass commodities. Above all, the countries of Europe which have not much free space, the small and medium-sized states, among which Germany must now be counted, are dependent on common action. Here, as in South America, a strong urge towards the creation of greater economic areas is noticeable. Whoever, then, keeps out of such an area runs the danger of becoming completely dependent on the great Powers, rich in capital. But also spacious countries, as the United States, see themselves prevented from carrying the idea of self-sufficiency too far if they do not want to leave their great wealth of land unused and to lower very considerably their standard of living. And so Henry A. Wallace comes to choose a 'planned middle course', which would involve the withdrawal from cultivation of some 25 million acres of good plough-land, instead of 40 million as required by the nationalistic course, and would at the same time so lower customs duties that the United States could import annually 200 million dollars more of goods than hitherto. Although herself a great industrial state, she will maintain nevertheless the trade with the very much more densely populated industrial nations of Europe by keeping out less than hitherto the products of their highly skilled labour.

But if we are really at a turning-point in economic history one must not forget that it is not merely a question of the external order, of institutions and international treaties.

If, as has been shown, the general economic distress arose to an essential degree from the political oppression and exploitation of great nations, then the restoration of international trade in new forms presupposes the development of a strong feeling of solidarity and equality of rights and of esteem for each individual nation. So long as irreconcilable hatred and distrust poisons the relations between peoples there can be no cure for economic distress. The tense atmosphere which makes a profitable collaboration impossible must be done away with.

I consider it to be one of the most essential tasks of this Conference to awaken the consciousness of a common destiny and of international solidarity.

The systematic regulation of international trade makes higher demands on the nations' feeling of community than free trade, but planned internal economy makes very much higher demands in a moral sense on each individual concerned than the economy of free markets. Every individual engaged in trade or industry must be inspired with the feeling of national solidarity, and every member of the planned organization must rise above the average in impartiality, fairness, honesty, and expert knowledge. For planned economy in itself gives us no guarantee that the management of economic affairs will be effective and better than the preceding state of things. I may point out that in the United States public planning was as much to blame for the precipitate investing in the newly opened-up districts as the profit interests of the capitalists.

The state must take care not to prevent the orderly activity of private enterprise by its interference. The state must not smother the creative energy of the individual and not interfere to a greater extent than the forming of national economy to a harmonious whole makes absolutely necessary. The planned economy must also be guided by reverence for the spiritual and moral forces which have formed the nation and created its culture. There must be spheres which remain in principle closed to public interference. And to these belongs above all the ultimate life-giving cell of the people, the family.

Under the pressure of the world economic crisis the central powers of the state have in many countries been enormously strengthened, and the tasks of the legislature transferred to the executive. The chaos of parliamentary discussion and the conflicts of party and class interests have been held to run counter to the need for removing quickly and thoroughly the general distress.

It is also understandable that men who have to carry out far-reaching measures in a hurry have acquired a strong dislike to public discussion in the daily press and interested circles, as was formerly the custom, and have, in many countries, considerably restricted that freedom. But the community has all the more urgent need of research work in the economic and social sciences. Without this the danger arises that even the responsible authorities may be led astray in their knowledge of the facts and of the connexions between the facts. Quite apart from this, science represents an independent cultural value. One notes with satisfaction to what a great extent, particularly in the United States, the economic and social sciences have been called in to help in finding the solution of the very great difficulties of the present time. That in Germany, too, the work of science is recognized as necessary is proved in a concrete manner by this Conference. We have here no other duty than to seek for the truth and with all frankness to express what we have, after conscientious examination and self-criticism, found to be true. There is only one obvious limit which we must set ourselves, proceeding immediately from the respect due to the individuality of every people. There must be no attack made on the form of government of any of the countries here represented, and no attack on the leading men of those countries.

As men of science we shall treat our subject somewhat differently to the many recent international conferences which have made agrarian questions the subject of their deliberations. We will not limit ourselves to the examination of the value of the individual measures taken. We will, considering the whole world and calmly pondering on all the relevant facts, try to answer the question: Whither does the policy started during the crisis lead? Where are we to draw the boundaries of a public-planned economy, the boundaries for the socialization and nationalization of industry? The programme for this meeting has been drawn up by the executive committee in this sense. May it be of value to all the peoples represented here and to humanity at large!

SECTION I

NATIONAL POLICIES IN AGRICULTURE—THE FORMS, STAGES, AND LIMITS OF PLANNED ECONOMY

PLANNING MEASURES FOR THE PROTECTION OF BRITISH AGRICULTURE

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COMPARED with many other countries, Great Britain has only gone a small way in economic control and regulation of or on behalf of its agriculture, but in the view of a great many of our own people, it has gone quite far enough and in fact too far.

The political chart of Great Britain's recent policy goes back to 1931. Although the price collapse was earlier, the political aspects of the economic crisis came to a head in the late summer of 1931, with the result that the year must be divided into two parts. In the first part the Labour Government under Dr. Addison passed two agricultural measures. Both were far-reaching if put into full operation. The former was the Land Utilization Act, a miscellaneous measure, which gave facilities (*a*) to settle large numbers of unemployed on small full-time holdings; (*b*) to provide others of the unemployed with the part-time holdings which we call allotments; and (*c*) to give the Minister of Agriculture power to order that land which is being allowed by its owner to fall into a derelict condition through lack of proper drainage, &c., shall be properly equipped or, on the continued failure of the owner to do so, the Minister may assume ownership of the land. This measure has been allowed to lie dormant, and no steps have been taken to replace it.

The other measure, passed in the first part of 1931, was the Agricultural Marketing Act. This Act was described as giving effect to the principle of compulsory co-operation in agriculture—in the view of many people a grotesquely inconsistent term. The Act has since been variously described as the charter of economic planning or the charter of industrial self-government. Although passed before the acute period of national crisis by the opposite political party to the National Government, and although very strenuously opposed at the time by the conservative and agricultural interests in the country, this Act has become the central part of the most important of the subsequent agricultural policy. The Act of itself did not establish any agricultural marketing boards or institutions. It was purely an enabling measure which asserted the principle that where a given percentage of the producers of a given commodity in a given area agreed to market that product entirely through one single organization and to bind themselves by its regulations, then the Government would step in to compel the minority also to market the product entirely through the single organization and be bound by its regulations. The Act of itself could achieve nothing without first of all a majority of producers voting in favour of a marketing scheme for their product, and it was safely wagered at the time the Act was passed that, except in a few special cases, farmers would not avail themselves of the facilities of the Act.

In the second part of 1931 the National Government came into operation, and from that time we have had put into operation all the common methods of protecting our agriculture.

In November 1931 we were given the Horticultural Duties Act, which imposed quite heavy duties on the imports of certain luxury fruits and vegetables. It was a curious half-hearted measure in that, while imposing substantial duties partly to help British producers, the duties did not apply to the periods of the year when British producers had any of these commodities to sell. It was, in fact, more of a sumptuary law than an Act of agricultural or horticultural protection, but its scope was so small that its influence on the so-called alarming state of Britain's adverse balance of trade was negligible. This measure could not at the time be taken very seriously, but it was the first essay in the realm of agricultural protection.

In the following year the Import Duties Act applied a 10 per cent. *ad valorem* duty on all imports, including agricultural commodities. A number of agricultural products, notably wheat and meat of all kinds, were placed upon the free list as it was then considered inexpedient to place taxes on the food of a nation so long used to free imports. By the same Act the Import Duties Advisory Committee was set up to review the claims of individual commodities and to recommend increased duties where they thought fit.

Almost at the same time the subsidy method was adopted for wheat. Under the Wheat Act both free imports and the open market were retained, but wheat-growers were provided with a subsidy. Farmers in Great Britain have had previous experience of subsidies, notoriously the sugar-beet subsidy which has claimed about £40 million, directly and indirectly, from the Treasury in the past ten years, but the Wheat Act subsidy inaugurated a method quite new to our country. The fund from which the subsidy was paid was derived from a levy imposed on all wheat flour sold by the millers or importers of flour. Out of the fund the wheat-producers as a whole are guaranteed an average price of 45*s.* per quarter (5*s.* 7½*d.* per bushel) for all wheat of millable quality. The price of 45*s.* is obtained by the farmer in two parts: first, from the open-market price obtained from his merchant, and second, from his share of the subsidy fund, i.e. the deficiency payment. The *average* market price obtained by *all* farmers subtracted from 45*s.* determines the deficiency payment paid to all. There is, however, a limit of 27 million cwt. set as the total amount of wheat upon which the average price of 45*s.* will be paid. The figure of 27 million cwt. was much in excess of the national output in the year the Act was passed, but last year, with the increased acreage and the excellent crop, that figure was exceeded by 2½ million cwt. The Wheat Act has operated smoothly and appears to have created little or no dissatisfaction among farmers, which is the same as to say that it has been found very satisfactory, as it very well might be, since it has given the British wheat-grower roughly double the market price for his product. At the same time it is reckoned to have raised the price of bread by ½*d.* per 4 lb. loaf.

The next important step in the national policy was the Ottawa Agreements in August 1932. Empire products had been totally exempted from the protective duties already imposed by the National Government and, of course, had an Imperial preference in the case of earlier duties, such as the sugar duties. The new and revised duties agreed upon at Ottawa for foreign agricultural products were comparatively unimportant. A new duty of 2*s.* per quarter on wheat was imposed, the cheese duty was raised from 10 to 15 per cent. on value, and the butter and eggs duties were changed from 10 per cent. *ad valorem* to specific duties (15*s.* per cwt. on the former and 1*s.* 6*d.* per gr. hundred medium size on the latter). The important tariff result of Ottawa was that it secured for the Dominions a free market for agricultural products in the United Kingdom for a period of five years, 1932–7.

But Ottawa inaugurated for Britain another method of protection, namely, quantitative regulation of imports by means of quotas. This policy for some misty reason was adopted for beef, mutton, and lamb. By it foreign beef and mutton and lamb imports into the United Kingdom were to be reduced progressively over six quarterly periods from January 1933 to the end of June 1934. Foreign frozen beef and foreign frozen mutton and lamb over these eighteen months were to be cut down to 65 per cent. of the imports in season 1931–2: Dominion supplies were to be unregulated. On the other hand, imports of chilled beef which, of course, constitute by far the biggest share of our imported supplies of beef were not to be cut but were to be stabilized at the level of the 1931–2 season. The scheme was elaborate but on the whole not drastic. It is notable, however, as Britain's first adventure in the quota system.

Another measure passed in 1932 which is not unimportant from the agricultural point of view was the Irish Free State (Special Duties) Act. This Act was a reprisal on the Irish Free State for the non-payment of the Irish Land Annuities, but as the duties are on agricultural produce almost exclusively, and as Ireland was an important source particularly of butter, eggs, and store cattle, these duties play a part in the general agricultural situation.

Legislatively, there is then a jump in the record to the new Marketing Act of 1933 which did not supplant but supplemented the Marketing Act of 1931, the former Act remaining substantially intact. Among other things, such as establishing the Market Supply Committee and other 'watching' committees, the Act (1) gave to secondary producers of agricultural commodities powers to organize on the same lines as primary producers under the 1931 Act, and (2) gave powers to the responsible Minister to make compulsory orders for the quantitative regulation of imports. The Act, therefore, extended, potentially at least, the scope of centralized control of agricultural produce. The Act became law in July 1933, so that we must bear in mind that it has only been a little over twelve months in operation.

That does not complete up to date the account of the legislative measures in agricultural policy, but it is a suitable point at which to pause and make a retrospect of the facilities made available.

In dealing with home supplies, farmers, under the Agricultural Marketing Act, 1931, have powers to establish a monopoly control either nationally or in a given area over the disposal of any product. These powers extend now to the making of regulations also to limit the production of the commodity. Secondary producers, such as bacon-curers, millers, &c., have similar powers under the Marketing Act, 1933. Where a majority of home producers are willing, therefore, the powers given to them to regulate home supplies are almost unlimited, while the commodity boards which can be set up for the purpose are directly controlled entirely by the producers themselves.

Neither the Government nor the consumers have any direct representation or vote.

In dealing with imported supplies, the Import Duties Advisory Committee have powers to recommend revision of the tariff on any commodity, and the Government can put these into operation by Order. Next, by the Marketing Act, 1933, the President of the Board of Trade has powers to make compulsory orders for the quantitative regulation of imports. Finally, we must not omit the powers of the Minister of Agriculture to negotiate 'Gentlemen's Agreements' with other countries for the limitation of imports.

By the late summer of 1933 the facilities therefore for regulating the marketing of home supplies and for regulating imports were nearly as comprehensive as possible. The policy after an appearance of much groping had become consolidated, and it would almost appear as if anything could be done to deal with the supplies and marketing of agricultural produce without recourse to further legislation.

It is necessary that I should be very brief in stating how far these available powers have been used in the two directions. Under the first, the whole of the marketing of milk, of pigs for bacon, of hops, and of potatoes have been brought under the control of marketing boards. The Bacon-pigs Scheme was the earliest and has just completed its first year. The Milk Scheme for England and Wales began in October of last year, and for the major part of Scotland in December. The Potato Scheme came into force early in this year. These are the only major products which have inaugurated schemes. So far there are no schemes for the beef industry, the sheep industry, any of the cereal crops, or of the market-garden or fruit crops. Under the second group of powers, namely, to deal with imports, the Import Duties Advisory Committee has done very little revision of the duties on the primary agricultural products with the exceptions of potatoes and oats. The Ottawa Meat Agreement operated until June of this year without great success from the home producers' point of view, while the compulsory powers to impose quotas under the 1933 Marketing Act have been applied in two instances only, namely, on the imports of bacon from all countries and on the imports of fat cattle and beef from the Irish Free State. That, I realize, is a very inadequate outline and gives a very inadequate impression of the importance to be attached to what has been done.

I wish, however, to utilize the remainder of my time not in going into detail of the administrative progress of Great Britain's planning policy, but in trying to express the national feeling towards the general policy.

The whole emphasis of the policy adopted is on marketing;

practically nothing has been attempted on land improvement, land settlement, production methods, and credit. We cannot assert that it even covers the whole of marketing, since exceedingly little has been done so far to improve the efficiency of marketing methods. When reduced to its essentials, planning so far has been confined to an attempt to regulate supplies, or rather to restrict supplies in order to raise prices. In the main the pressure of our farmers is for applying the restriction entirely to foreign and empire supplies, i.e. to imports, but the principle of restricting home production is also being admitted in the Potato Scheme and the Hops Scheme. Reduced to its lowest terms, therefore, the whole emphasis of the policy so far has been to restrict supplies in order to increase the farm prices, an emphasis which makes this policy distinguishable from the very old policy of protection only by name.

But already these are signs of a growing opinion that (*a*) this restriction of supply is not an easy method to apply in a country like Great Britain, nor is it likely to bring about quick results unless pursued to an extent which would have obvious and disastrous results on the 90 per cent. of our population which is not agricultural in its occupation, and (*b*) that economic planning must aim at increased efficiency, which is something more permanent and tangible than merely an attempt to manipulate supplies in the interests of a section of the nation.

A restrictive policy on imports is not an easy method to apply because of Great Britain's economic structure for the past century and more; a small country with a proportionately large population and a fairly high standard of living derived from industry and trade; with large overseas investments and foreign interests and commitments which make its concern for the solvency of agricultural nations something more material than a mere feeling of moral responsibility in international trade; with consumers accustomed to reasonably priced food and—more important—to a wide and free choice in their shopping. All of these considerations are on the one side, while on the other we have only 10 per cent. of our population directly concerned with agriculture. It will be increasingly difficult to convince the public that it is sound and necessary to hand over into the hands of the 10 per cent. the power to dictate the terms upon which the other 90 per cent. shall buy their food supplies at a time when the purchasing power of the 90 per cent. is at its lowest ebb. In addition, Britain has not abandoned hope that the best chance for the immediate future, whatever the distant future may hold, is a revival of its industry through export trade and foreign investment. The clash is therefore already apparent between those who are seeking opportunities abroad and those who are looking only to the immediate financial position of the farmers.

As an indication that the optimism of the agricultural leaders in 1933 has given place to a realization of the difficulties, I may go on to quote very briefly the outstanding moves of the present year. As I outlined earlier, the late summer of 1933 saw the farmers and the Government equipped to go ahead in pushing forward its policy of controlling supplies to bring better prices. Yet, in the spring of 1934 the Minister had to come to Parliament for a subsidy of 3 millions for two years to help carry on the dairy industry. More recently the Minister has been striving to set the beef industry on a better footing. The powers to elect a Marketing Board for the regulation of home supplies are there and the Ministers have now full powers to restrict imports quantitatively since the Ottawa Meat Agreement expired, yet in spite of the powers which were sought and obtained in 1933, the Minister had to come forward to ask Parliament for another subsidy of £3 millions to save the cattle industry.

The position at the moment seems to be that the faith in the policy of 1933 is clearly shaken. The farmers have experienced the working of centralized marketing control. The external policy of import restrictions is being met by opposition from abroad and from some of the export interests at home. At the same time the sympathy of the public for the farmers which did exist last year when the large powers were being granted to enable them 'to set their own house in order' (to use the ministerial phrase) is much less than it was.

But, though shaken, it is by no means broken, and the future of British agricultural development is still obscure. In a country like Great Britain it is to be expected that there will be very many people to whom this policy so diametrically opposed to Britain's traditional policy has appeared fundamentally wrong from the start; there are many others to whom it has been acceptable as a temporary policy to meet a temporary situation. Others, with whom we may include most of our farmers, believe that the policy will be permanent and will ensure the prosperity of farming even at the expense of the rest of the community. On the other hand, those who have a belief in the future of planning—that the state must take an increasing share in the regulation of economic activity—may well view with concern the one-sidedness of the present agricultural policy.

If it is sincerely a policy of planning, then it is attempting to start with what surely must be by far the most difficult of all problems of planning, namely, the adjustment of the necessarily variable agricultural supply to the vague and indeterminable consumers' demand for food. Yet while this is nominally, at least, being attempted, there is a very great field of planning to be undertaken in Great Britain to build agriculture both for production and marketing on an economically efficient basis. That side of agricultural planning has been neglected in the insistence upon the policy of restricting supply. The abandonment of free trade may involve the final discarding of much of England's economic theory which was based upon the pure assumption of free competitive conditions, but it does not therefore mean that as economists we must abandon the belief that the purpose of economic organization is to provide our goods and services with the minimum expenditure of human effort *and* to evolve a just system of distributing the fruits of our efforts. That surely must to economists be the test of sound economic planning. To many of us the British agricultural policy of recent years has failed to give sufficient consideration to this principle. On the other hand, in the machinery which the marketing schemes and to a less extent the import regulation are establishing to-day, there is growing up an organization which may bring greater efficiency into one side of the agricultural industry, namely, its marketing, and it is very difficult to conceive that in some aspects at least of its present agricultural policy Great Britain can ever turn completely back again.

MEASURES TAKEN TO COMBAT THE CRISIS IN SWISS AGRICULTURE

ERNST LAUR

Zurich

SWISS agriculture has not been spared by the economic crisis. In the pre-War years (1906–13) capital invested in agriculture yielded on an average 3·6 per cent., in the war years (1914–19) this net yield rose to 8·5 per cent., and sank in the post-War period (1920–22) to 1·9 per cent. Under the influence of measures carried out by the state and the agricultural organizations the yield gradually rose again. In the period 1923–7 it was 2·6 per cent., and 1926–30, 3·2 per cent. In the year 1929 it again reached the same level, 3·6 per cent., as before the War, although in calculating this figure a higher estimate of the wage demands of the farmers' families was made, corresponding to the change in the employees' wages. Then the reaction began. In the year 1931 the net yield was only 1·5 per cent., in the year 1932 it was as low as 0 per cent. In 1933 it is likely once more to be above 1·5 per cent. The agricultural income from work and capital per man-work day was, before the War, 5·4 fr., during the War, 13 fr., and sank after the War to 8 fr. In 1932 it had sunk to 2·50 fr., and in 1933 will probably have reached 5 fr. again. But since the cost of living index has risen, the 5·50 fr. of to-day mean a good deal less than before the War.

The following figures show that the Swiss peasant must to-day sell more milk than before the War to buy the same amount of other goods, with the exception of a very few products, as for instance, sugar. The values of certain commodities reckoned in quantities of milk are shown in the following table:

Value of Certain Products measured in Quantities of Milk

	Pre-war *kg. of milk*	*May* 1934 *kg. of milk*
1 Kilo Coffee	12	12·6
1 Kilo Sugar	2·5	1·6
1 Pair Working Shoes	65	97
1 Metre half-linen material (peasant's cloth)	38	49
100 kg. Oil Cake	108	93
100 kg. Basic Slag	34	35
1 Reaping Machine	1757	2162
Cash Weekly Wages of a milkman	68	119
Mason's hourly wage-rate	3·2	9·7
Cost of Erecting Cowshed per head of cattle	3514	8378

The pre-War equilibrium between the prices of agricultural products on the one hand, and wages and the prices of industrial products on the other, has not nearly been reached in Switzerland.

During the War it was the aim of Swiss agrarian policy to assure the consumer's supplies and to prevent excessive prices. The farmers at first willingly accepted these measures, but towards the end of the War resistance on the part of the peasants grew.

After the War the task was to prevent a too rapid and too great fall in prices. The attempt was also made to increase production and improve the quality of products.

Under the influence of the growing world economic crisis it was realized that the increase of production was no longer the proper means to raise incomes. It became increasingly necessary to restrict production in order to retard the fall in prices. But at the same time the efforts made to improve the quality of products were continued.

It is not possible, in the time at my disposal, to give you a complete account of the measures which have been taken in Switzerland to combat the crisis in agriculture. I must restrict myself to a few main points and a skeleton survey.

Even before the crisis started Switzerland possessed the following foundation stones for the preservation of our peasant class.

First: The *Swiss Peasants' Union.* This is the federation of Swiss agricultural organizations, whose aim it is to represent the agricultural interests in public life. To it belong all the agricultural organizations of Switzerland without distinction of language, politics, or religion.

Second: The *Federal Law for the Promotion of Agriculture.* With the help of this law the Confederation and the cantons have promoted the agricultural-school system, the technical side of agriculture, especially the breeding of animals and the improvement of the soil, as well as science and insurance.

Third: The *Co-operative System* for the purchase and sale of agricultural requisites and products. The co-operative system has also taken over certain branches of production, e.g. cheese factories, wine-pressing factories, wine cellars, the maintenance of male animals for breeding, &c.

Fourth: The *Central Union of Swiss Milk Producers* and the *Swiss Cheese Union.* Their chief importance lies in the utilization of milk, and in the guaranteeing of cheese prices which then form the general basis for the purchase of milk.

Fifth: The *Commission of Swiss Cattle-breeding Unions,* which is concerned chiefly with negotiating the export of cattle.

Sixth: The *Cereals Legislation*, which guarantees to-day a wheat price of 36 fr. per 100 kg. The state is obliged to take over all cereals which can be used in baking, and which are offered to the state, provided the peasant has fulfilled his duty to keep enough for his own demands.

Seventh: The *Policy of Tariffs and Trade Agreements*, which has to take into consideration agricultural conditions and wishes.

Eighth: The *Cattle Disease Inspectors*, who, by restricting import and by measures at home, have succeeded in completely wiping out foot-and-mouth disease.

Ninth: The *Food Law*.

Tenth: The *Swiss Civil Code*, which, by the law of inheritance, assures to the peasant's son the right to take over the farm at the capitalized value of the annual net return. In contrast to the German law for the promotion of hereditary farms (*Erbhofgesetz*), the provision made for the co-heirs is based on the assessment of returns.

Of all the measures taken those connected with price policy are the most important. To-day, Swiss agriculture derives its cash income from the following items:

About	33	per cent.	from	milk.
,,	25	,,	,,	fat cattle and veal calves.
,,	10	,,	,,	breeding cattle.
,,	10	,,	,,	pigs.
,,	5	,,	,,	cereals.
,,	2	,,	,,	potatoes.
,,	6	,,	,,	fruit.
,,	2	,,	,,	wine.
,,	2	,,	,,	woods.
,,	5	,,	,,	various sources.

These figures explain why the most important of all the measures taken is the maintenance of milk prices. Even before the War, there was an organization of milk producers, which was at first attacked by the cheese trade. When the War broke out agriculture made peace with the cheese trade. The Swiss Cheese Union was founded, and to this the milk associations, as well as the cheese trade, belong. The whole of the cheese trade, including the export business, is thus concentrated under one control. The Cheese Union each spring and autumn, when the cheese producers bought the milk, guaranteed the price of the cheese made from it. Then, in the period after the War, came the sudden fall in prices. The losses thereby incurred were so great that the state had to assist the organization. From then on the milk associations took over the guaranteeing of cheese prices. They buy the cheese and then resell it to the Cheese Union. During the crisis this organization was extended in various directions. The directors of the milk associations were given the right to determine in what way the milk was to be utilized. On the strength of this, the production of butter was vastly extended. A butter centre was set up to regulate butter prices, and the state and the milk associations subsidized butter prices in order to guarantee the sellers of milk used for the production of butter the same prices as those obtained by the sellers of milk for the production of cheese. The equalization levy collected from the members of the association was declared by the state to be obligatory for the 'unorganized' producers as well. The state itself also began to pay large contributions to the milk associations in order to maintain the price of milk. At the request of the agricultural organizations, imported feeds and green fodders were submitted to a heavy charge, the revenues of which were given by the state to the milk associations in order to help the prices of milk. By imposing quotas on and raising the price of feeding stuffs, the attempt was also made to restrict the production of milk and pigs. When these measures proved inadequate the milk associations resolved to grade milk prices so that all milk sold above a definite quota would not obtain the full guaranteed price. By working out stricter milk regulations the quality of milk and dairy produce is to be improved. The result of these measures is that for the last three years the basic price of milk has been maintained at 18 centimes per kg. On an average there is added to this basic price a local rate of 1 centime, so that Swiss agriculture receives 19 centimes per kg. of milk.

In order to influence the market for *fat cattle* the following measures were taken:

First and foremost the cattle-disease inspectors took rigorous action. It is well known that foot-and-mouth disease can remain virulent for more than a year in the urine of apparently healthy, but really diseased, cattle. Therefore, all imported cattle represent a danger to the native stock. In Switzerland itself all cattle on a farm are slaughtered as soon as the disease breaks out. Thus in Switzerland all diseased herds have been destroyed. We only have foot-and-mouth disease now when it is introduced from abroad. As a consequence of the legislation for the prevention of epidemic diseases, Switzerland has the right to close her frontiers entirely. In spite of the danger of disease, the frontier was, before the crisis, opened from time to time, but now, for economic reasons as well, the Disease Law has to be rigorously applied.

Further, a central department was set up within the Swiss Peasants' Union to deal with the utilization of beef cattle. The Union instituted all over Switzerland periodical markets for live cattle, by means of which a better control over the supply and the movement of prices was made possible. The state also placed part of the yield from the feed duties at the disposal of the central department, so that the latter could have a regulating influence on the market by purchasing cattle. As a result, a fairly large number of cows for slaughter were bought up and handed over to the canning factories. For fat calves a price guarantee was granted. All calves which could not be sold at this price were taken over by the central department and utilized, partly, it is true, at a great loss.

In addition, the central department, if the necessity arises, takes over at the live-stock markets animals of first quality which find no buyer. The department can then usually dispose of these animals to Swiss butchers at current prices. As a result of these measures, the price of first-quality beef-cattle could be kept at 1·20 fr. per kg. live weight for a fairly long time. The old sausage-cows fetched a price of 1·15–1·20 fr. per kg. butchers' weight or 55–7 centimes per kg. live weight. The guaranteed price for fat calves, first quality, was 1·60 fr. per kg. live weight. In the past few weeks, on account of drought and a fall in pig prices, the cattle market has been subjected to considerable pressure. But we hope that, thanks to the intervention of the authorities and the organizations, a serious reaction will be avoided.

There is no lack of attempts to win back the export of breeding cattle lost in the War. But the difficulty lies above all in the price difference. The foreign breeders frequently lack the means to pay the prices which our farmers would need to get. The state pays contributions towards the transport of cattle from the breeding districts to the plain, and premiums for breeding-cattle intended for export. With its help, breeding stations were also set up abroad, from which the cattle are to be sold. This has, however, until now met with but little success. Nevertheless, by means of these measures it was possible to stimulate export to a certain extent, but to-day conditions in cattle-breeding are more unfavourable than in any other branch of Swiss agriculture. Our foreign guests, coming to see our mountains and to admire the beauty of the Alpine world, mostly do not realize how heavy are the economic difficulties reigning to-day in many Alpine villages.

In the *pig* market fewer direct measures have been taken. But the state has forbidden the import of pigs. Owing to the rise in the price of feeds, industrial fattening particularly has been made difficult, and the associations have systematically, in the agricultural press, called on the peasants to limit the breeding and fattening of pigs. At first the warnings had an obvious effect, but when prices had risen to 1·60 fr. per kg. live weight, with the price of concentrated feeds at 18 to 22 fr. per 100 kg., it was no longer possible to restrain the increase in production. In the spring of 1934, prices sank to 1·10 to 1·20 fr. There is a danger that these low pig prices will pull down prices for cattle and calves as well. Here, too, it was proved that those who demanded a compulsory quota system for pig breeding and fattening were right. But there is a great unwillingness to interfere with the measures chosen by the farmers, and so no decision could be reached to impose this quota system, by means of which one could obtain complete control of prices.

I have already mentioned that the state is obliged to buy *cereals* at guaranteed prices. The law states, however, that the guaranteed price may not be more than twice the price of foreign wheat, including duties and carriage paid to the storehouse. But since, in the past year, this latter price would only have been 28 fr., the national assembly, on the strength of an emergency clause of the law, resolved to impose again a standard price of 36 fr. per kg. for wheat. Apart from this, the state pays to farmers who use corn to bake bread for their own consumption, a milling premium of 7·50–14 fr. per 100 kg., depending on the altitude of the farm. On the basis of these prices and as the result of a good harvest, cereal farming yielded large profits in 1933, in spite of our generally very high costs of production. This year, too, we hope for good results.

Internal prices for *potatoes* can, in general, be regulated by means of our variable potato duty, which is from 2 fr. to 6 fr. per 100 kg. Last year, owing to the low prices of foreign potatoes, the duty had to be raised to 6 fr. and the import subjected at the same time to a quota. In addition, the alcohol administration pays contributions towards the transport of home-grown potatoes, becoming thereby free of the obligation to distil potatoes. It also intervenes from time to time by means of purchases in the market. In the last few years the price of potatoes has been, in general, 10–12 fr. But in the year 1933 it sank to 8–9 fr. the double centner (220 lb.).

The new alcohol legislation has imposed an obligation on the farmers to hand over to the administration all *spirit made from stone fruit*. The administration, on the other hand, is obliged to accept the spirit. The guaranteed minimum price means a minimum price for fruits used for the making of wine, of 4 to 5 fr. per 100 kg.

The alcohol administration converts the greater part of this spirit into highly concentrated alcohol, and loses thereby at least 150 fr. per hl. of 100 per cent. spirit. The loss is covered by a large extra charge on the sale of spirit for drinking purposes. The utilization of *dessert fruit* has been improved, particularly by the introduction of export control and by improving the quality of the fruit sold.

Vine culture is protected by a fairly high tariff. Nevertheless, a great part of the wine trade prefer foreign wines. This led to the institution of co-operative cellars which buy up all the wine from their members in the autumn. The Peasants' Union has proposed that the purchasers of foreign wines should be compelled to take over the surplus of home-grown wine at guaranteed prices. That is all the more possible in that home supplies cover only about a quarter to a third of the consumption.

Swiss timber has also suffered severely from increasing imports from foreign countries and from falling prices. It has therefore become necessary to set up import quotas. It was possible to make arrangements with the paper mills to take over the home production. Through these measures the fall in prices has been checked. Prices in the last few years have even recovered a little, but they are still too low.

A quota had to be imposed on the import of *eggs* in order to protect home poultry farms. At the same time, importers are obliged to take over any surplus from Swiss egg organizations at prices fixed by the state. The Co-operative Societies for egg utilization, undertake the task of collection. A quota has been imposed on the import of poultry. It would take too long to enumerate all the other measures that have been taken.

To judge the effect of all these measures to combat the crisis in agriculture, we may best use the price indices for agricultural products calculated at regular intervals by the Peasants' Office. Calculating on 100 as the pre-War figure, the index was: 1930, 154; 1932, 120; 1933, 118. The figures show that the price fall could not indeed be prevented, but could be slowed down. Without these measures Swiss agriculture would have been lost. The Swiss peasant has to reckon with very high production costs. Before the War these were 800 fr. per hectare, but to-day they are 1,400 fr. In farms where the books are controlled by the Swiss Peasants' Office, the land and buildings of the farms are valued at 6,400 fr. per hectare and, in addition, 1,900 fr. of tenant's capital, so that there is a total capital of 8,300 fr. per hectare. The cash wage of a farm labourer is on the average 90 fr. a month, and the cost of food supplied 2 fr. a day, according to the book-keeping entries. Any expert will understand when I say that, with such costs of production, Swiss agriculture would have been lost without protection. I estimate that, without the measures taken by the state and the organizations of Swiss peasants, the prices to-day would be: for milk, instead of 19 fr., barely 12 fr. per 100 kg.; for pigs, instead of 1·30 to 1·60 fr., perhaps 1·25 fr. (and without the customs duty 0·60 fr.) per kg.; for wheat, instead of 36 fr., barely 12 fr. per 100 kg.; for 100 eggs, instead of 12 fr., barely 7 fr.

The price policy was, therefore, a necessity for the state, if it wished to avoid the collapse of the peasant class, which would have vastly intensified the economic crisis.

But it must be observed that the low prices and excessive costs are not alone in influencing the situation of the peasants in Switzerland. The purchase of farms at too high a price and the excessive debts have also intensified the crisis. Particularly those peasants who took over their farms in post-war years find themselves in a difficult position. They have often debts of 6,000–7,000 fr., and even more, per hectare. It was not uncommon for farms to change hands at a price of 10,000–12,000 fr. per hectare. Such cases were usually those of young peasants.

The reason for the excessive price paid was partly a false idea of the future development of prices. We have indeed continually given warnings, but without any decisive success. Unemployment among industrial workers and artisans, the reduction in the number of government employees and officials in public offices, and the closing of the frontiers of foreign countries to immigrants, have removed from many peasants' sons the possibility of taking up another profession. The peasants' law of inheritance has greatly diminished the number of farms which come up for sale in the open market. Whenever a farm is to be disposed of, there are numerous competitors for it. When calculating the price, they do not think only of the possible profit. They struggle to become a peasant, to start a family, and to remain in their native country. The man who possessed capital often consciously sacrificed it in order not to have to emigrate. At the same time workers and capitalists have begun more and more to purchase land and farms. These latter also often paid too high a price. The young peasants are, therefore, not alone to blame if they have got into such a difficult position to-day. These peasants, over-burdened with debt, can no longer be helped by the price policy. We cannot ask the consumers to pay prices for products high enough to enable such peasants to continue. The attempt is, therefore, made to help these people by removing the debts. In all cantons, therefore, Peasants' Assistance Banks have arisen, which, with the help of the state, seek to put such farms on a sound financial footing. Creditors can also help by reductions in their claims. Apart from that a general removal of debt is at present aimed at, in that all debts which exceed the value of the yield should be paid off by public means. The creditors are to receive state bonds yielding an interest of 3 per cent. At the same time new indebtedness is to be avoided. There are, it is true, great difficulties in the way of a general limit to indebtedness. One can, therefore, at present prevent only the farms which have been cleared of debt from taking on new debts. The paid-off debts are to remain as a frozen mortgage. No interest is to be paid on them, but they come to life again when the farm is sold or has been divided by inheritance. The application of the peasants' law of inheritance is to become obligatory.

The efforts made to win over agriculture to currency experiments, such as the devaluation of the franc and 'free money', have been without any practical success. The agricultural organizations reject these proposals, though there are supporters, particularly among the young peasants.

Herewith I have given you a broad survey of Swiss agrarian policy in the crisis. If you remember that the peasants are now only 25–30 per cent. of the population, and that we are a democracy in which the laws are subject to a referendum, and that the constitutional initiative is possible, then you will agree with me that the helpful attitude of the authorities and the majority of the Swiss people is deserving of our admiration. In Switzerland too the powers of the Government had to be strengthened in the crisis, and many measures were carried through by giving authorization to the Bundesrat. The Swiss Confederation has at the same time received many and large new sources of income. This year our budget will be balanced again. We may hope that the Swiss people will succeed in carrying on until better times arrive for our country, and for all mankind. May the first signs of revival, which we observe in Swiss agriculture as well as in world trade, not be deceptive, and may right soon the warming sun of a new and better age cast its rays over humanity.

My remarks have probably left you with the impression that we in Switzerland have to a large extent gone in for economic planning in the agricultural sphere. We did this under the pressure of the crisis, driven on by circumstances and the problems of the day.

Fundamentally Swiss agriculture still stands to-day on the basis of free private enterprise. The word 'freedom' has in Switzerland, through a history of many centuries, a sacred sound. The Swiss peasant has never forgotten that peasants were the founders of the country's freedom. But he is also conscious that freedom does not mean anarchy. The way must be open for what is good, but closed to what is harmful and bad. The great development of the co-operative system has paved the way for the most recent developments. We possess in Switzerland over 12,000 local agricultural associations in 3,000 communes. It is generally realized that the purchase of articles needed in agriculture, and the sale of agricultural products must not be left to free competition. In the sphere of production co-operative association has made great strides, for instance, cattle-breeding co-operative associations, milk and cheese associations, co-operative wine presses and wine cellars. The local associations have come together to form unions. The Swiss peasant was, therefore, not only prepared for organizational measures, but the state could also construct its measures on the basis of existing organizations.

The limit to state interference we have considered to be the farm. The state may well regulate trade, but it should leave the peasant in his farm full freedom. Unfortunately this limit could not always be respected. The quota regulations particularly interfere a great deal with the management and organization of the farms. They have on that account called forth most opposition. That was also the reason why some regulations came too late and why others have not been issued up to now.

The interference of the state and the organizations with the free development of the market and of prices has, however, been necessary. The success attained shows that the measures were right. If it had been decided to apply a quota to pig production, and, by means of higher state contributions, to keep the price of milk 1–2 centimes higher, we would by now have normal conditions in Swiss agriculture without the wages of Swiss industrial workers having on that account to be raised. The wage index in industry and trade is still 180–200, as compared to a cost of living index of 130, and an index of gross farm receipts of 113.

The peasant, who cannot judge what would have happened without the measures carried through by the state and the organizations, only sees that his income has decreased and that many owners who bought too dear in the years after the war, are faced with bankruptcy in spite of the price policy, and must appeal for the help of the Peasants' Assistance Fund. Many feel the pressure of the regulations which were necessary to keep up the prices more than the benefits of the measures, and so in wide circles there is growing discontent, criticism, and opposition. And this becomes stronger the more the free management of the farms is interfered with through decrees.

In the shadow of the organizations, the unorganized producers flourish and reap where they have not sown, and answer all attempts at compulsion with passionate opposition.

In the time of the free market the man who had been shipwrecked could put the blame for his misfortune on individuals with whom he had had business connexions. But finally he had to admit that circumstances were stronger than himself: he passed away and another took his place. But in as much as the state and the organizations influence prices, and the direction of production, the peasant looks for the cause of his economic difficulties to the state and the organizations. Thus economic advantages must be dearly paid for with a great increase in discontent, criticism, and resistance. Only a state well founded, a strong central authority, and great leaders whose personality inspires confidence can master the difficulties. It is absolutely necessary that the state should show a wise restraint in carrying out the measures, and that the organizations, which have to have a democratic basis, should co-operate to the greatest extent. But the state must give these organizations the necessary powers, so that finally every one will have to bear the same responsibilities. For still more dangerous than the resistance to compulsion is the feeling of inequality and injustice, and the impression that the 'pirates' are better off than the members of the organizations.

In Switzerland, too, there can hardly be any question of returning to the economic conditions and freedom of before the War. But the new, permanent form has not yet been found. It must be prepared for by educating the peasant class to think in terms of common economic welfare. More must be done than hitherto in the way of enlightenment. Not only in the assemblies of delegates, but also in every local co-operative meeting, people must be shown how things hang together and they must be given the opportunity for a free expression of opinion and for the discussion in an efficient manner of complaints, criticism, and objections. This is doubly necessary in a country like Switzerland, where democracy has existed for many hundred years, and where, in the cantons of the country communes, those who have the right to vote step into the ring and elect the officials with raised hand in the old Germanic way and arrange state affairs.

I hope my remarks will have given you the impression that Swiss democracy has succeeded in solving to a large extent the great political and economic problems in the sphere of agriculture. Where there is light, there is also shade. If we extinguish the light, the shade vanishes too, but in place of the warm, glowing flame, there comes darkness, and night. But all of us, peasant, organization, and state, in a common determination, wish to strive towards the light.

MEASURES FOR COMBATING THE AGRICULTURAL CRISIS IN GERMANY

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AT the Second Meeting of the International Conference of Agricultural Economists in Cornell University, I had the honour of reporting on the German agricultural situation. I tried to illustrate the situation by some figures which—although possibly not quite exact in detail—nevertheless gave a reliable picture of the whole development and the economic perplexities of the post-War period.

To-day I will try to continue by giving you new and more up-to-date figures, which in the meantime have been improved and supplemented by the Statistisches Reichsamt (see Table 1, p. 61). I have also put before you a summary of the excess of German imports over exports of agricultural products (see Table 2, p. 62). These figures show:

1. German agriculture has never had again anything approaching such favourable results as before 1914, although production actually reached the pre-War level again in 1928 and since then has exceeded it, which fact is not expressed specially in this table. The year 1928–9, however, showed a considerable improvement, but this was followed by a new and sharp fall of income, the consequences of which could no longer be temporarily compensated for by credits.
2. The excess of imports over exports of agricultural products was above the pre-War level until 1929. Since then net imports have sunk to about one-third in value and roughly to two-thirds in quantity. In the case of grain for bread, self-sufficiency was realized already in 1931, and in the case of all cereals, in 1933, for the first time in two generations. In the case of meat also the need for imports almost totally disappeared, and in the case of butter, eggs, fruit, and vegetables it decreased. Only in the case of oranges, bananas, &c., and of the very important oil-fruits and oil-seeds the imports remained, with a large fall in prices, roughly at the level of 1928–9, and amounted, therefore, approximately to double the figures for 1913.

These facts explain to a large extent the direction and the methods of combating the crisis and of the German policy for the control of markets and prices on which I am to speak to-day, particularly for the period up to the middle of 1933, that is, up to the coming into office

TABLE 1. *Receipts and Expenditure of German Agriculture*

(In 1,000 mill. M. or RM.)

	1912/14	1924/25	1925/26	1926/27	1927/28	1928/29	1929/30	1930/31	1931/32	1932/33
Receipts:										
Proceeds from sales:										
Crop products	2,792	2,814	2,766	3,124	3,409	3,540	3,352	2,954	2,734	2,534
Animal products	5,111	4,486	5,074	5,136	5,691	6,420	6,278	5,446	4,366	3,766
Total	7,903	7,300	7,840	8,260	9,100	9,960	9,630	8,400	7,100	6,300
Increased borrowing	300	800	900	930	1,052	754	399	187	..	..
Total receipts	8,203	8,100	8,740	9,190	10,152	10,714	10,029	8,587	7,100	6,300
Expenditure:										
Buildings, machinery, feeding-stuffs, &c.	3,505	3,524	3,605	4,434	4,961	4,720	4,287	3,452	3,007	2,799
Taxes	200	797	804	735	785	783	804	714	612	546
Debt services	600	425	610	625	785	920	950	950	1,005	795
Rent	400	400	400	400	400	400	400	350	300	250
Cash wages	1,275	1,469	1,617	1,799	1,925	2,054	2,151	2,048	1,713	1,506
Total expenditure	5,980	6,615	7,036	7,993	8,856	8,877	8,592	7,514	6,637	5,896
Excess of receipts over expenditure	2,455	1,485	1,704	1,197	1,296	1,837	1,437	1,073	463	404
Excess of receipts (minus borrowing) over expenditure	2,155	685	804	267	244	1,083	1,038	886	463	404
Net (money) income from Agriculture (including cash wages	3,430	2,154	2,421	2,066	2,169	3,137	3,189	2,934	2,176	1,910

Note. The post-war accounts are mainly based on the calculations of the Reich Statistical Bureau, published in *Wirtschaft und Statistik* (14th Year, No. 16). For 1932–3 the provisional estimates have been used.

TABLE 2. *Net Imports of the Principal Food Products and Feeding Stuffs*

(For the years 1911–13, 1925–7, and from 1928 to 1933)

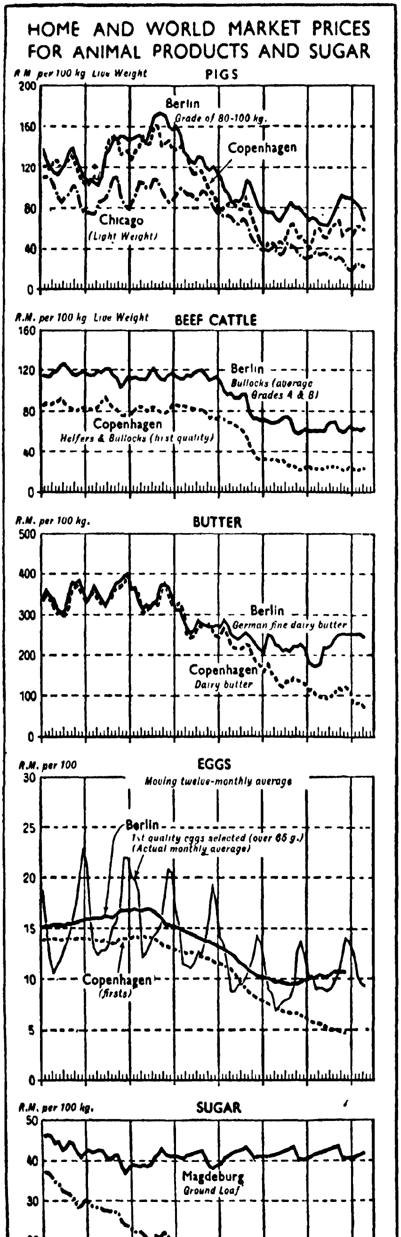
	1911/13		*1925/27*		*1928*		*1929*		*1930*		*1931*		*1932*		*1933*	
	1,000 tons	Mill. M.	1,000 tons	Mill. RM.	1,000 tons	Mill. RM.	1,000 tons	Mill. RM.	1,000 tons	Mill. RM.	1,000 tons	Mill. RM.	1,000 tons	Mill. RM.	1,000 tons	Mill. RM.
A. *Food products*:																
1. Bread grains including flour and milling offals	1,214	180	2,155	623	2,565	496	1,649	308	880	195	473	79	1,027	121	101	30
2. Meat, bacon, and meat products . . .	55	62	226	248	148	162	129	150	98	111	55	52	57	40	48	34
3. Lard and tallow .	152	150	146	197	128	147	126	148	104	112	104	87	138	80	106	52
4. Butter . . .	55	124	101	356	127	435	135	460	133	376	100	220	69	107	59	84
5. Cheese . . .	22	33	69	122	60	101	64	103	60	86	51	59	47	40	39	32
6. Eggs . . .	163	182	149	261	178	293	168	280	160	228	143	170	143	128	84	79
7. Vegetables . .	283	47	418	106	492	135	502	138	428	110	354	84	331	58	285	46
8. Fruit . . .	553	126	391	159	477	216	441	204	473	195	379	157	481	121	462	112
9. Tropical fruits . .	289	95	396	187	496	252	499	243	638	254	554	211	517	160	561	143
B. *Feeding stuffs*:																
1. Barley, oats, maize, millets . . .	4,365	553	2,901	495	3,048	586	2,032	364	1,737	250	1,311	123	1,334	111	432	26
2. Oil-cakes, bran and similar feeding stuffs .	2,429	279	494	66	769	114	602	94	414	43	392	41	799	76	507	46
C. *Oil-fruits and oil-seeds* .	1,470	461	1,718	628	2,459	847	2,586	857	2,311	644	2,411	435	2,387	319	2,286	268

of the present Minister of Agriculture. The price movements of the most important agricultural products can be seen on the graphs (see p. 64).

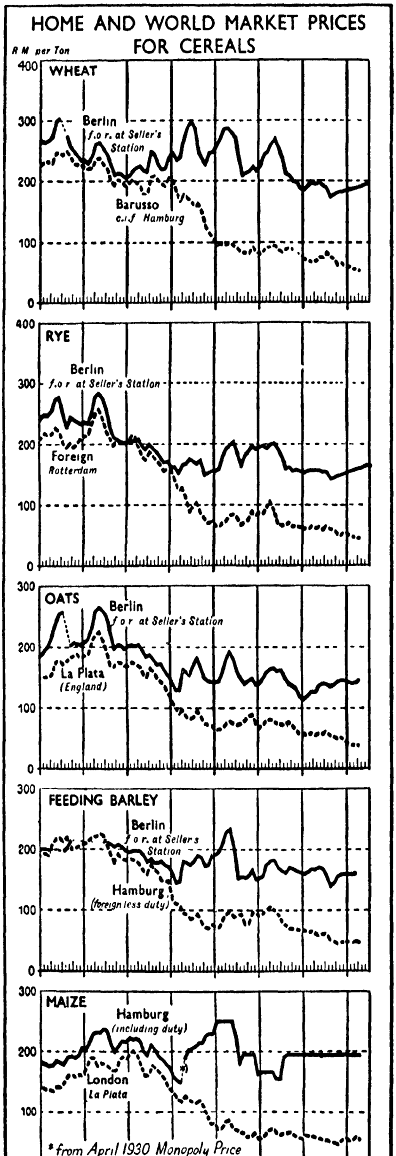
In 1926 the unilateral most-favoured-nation clause, which was forced upon the German Reich at Versailles, and which had never previously been imposed on a civilized nation, came to an end. A certain freedom of action in trade policy was thereby regained. As the other consequences of the Treaty of Versailles, particularly the impossibility of fulfilling the dictated payments, were veiled in these years of boundless optimism by credits of unexpected amounts, there was up to 1928 a pronounced approach to the pre-War conditions, not only in the level of agricultural production and in the development of import requirements, but also in the aims and methods of trade and price policy. The attitude of political groups and parties also corresponded to the customary conditions; the re-introduction of a policy of protective tariffs, with the most-favoured-nation clause and moderate tariffs fixed by agreements, aimed at those conditions which prevailed in the time of Chancellor von Bülow. It was supported in Parliament by the Parties of the Right and the Centre, and opposed by the free-trade Left.

The effects of this agricultural protection have been undermined from two sides since 1929: on the world markets prices fell by more than a half, and at home purchasing power dwindled down with the increasing industrial crisis and unemployment, especially as the annual increase in population was less than half the pre-War figures. The effects on the position of the rural population could no longer be temporarily covered by credit. Thus the view became generally prevalent that the state was called upon to interfere with the level of prices by new methods.

The decisive laws which brought about a complete rupture in foreign trade policy at the end of 1929, and which began the separation of German agricultural prices from the world-market prices were supported even by the Social Democrats, then in power. The measures of the next two years were also tolerated by them in a more or less veiled way. No political party and no government could possibly have refused these measures for an energetic combating of the crisis by means of an extensive price policy, especially in the situation of the German Reich. Its economic life had been faced with impossible claims, and one could not allow large parts of the nation to be ruined in order to prove this impossibility. The statesmen whose country remained exposed to continuous disappointments and vexations from abroad were unable to obtain at



HOME AND WORLD MARKET PRICES FOR ANIMAL PRODUCTS AND SUGAR



HOME AND WORLD MARKET PRICES FOR CEREALS

Institut fur Konjunkturforshung
Quarterly Journal 9th year, 2nd quarter,
T.B. pp 111-112, Berlin 1934

home the authority necessary for refusing to fulfil the demands of the masses, even if those demands would mean state interventions to an extent which seemed rather dangerous to themselves, at least if judged from economic opinions hitherto fostered. Above all considerations of economic expediency stood the urgent task of maintaining or renewing the political and social connexions, the foundation of every economic system, for a nation so deeply irritated by continual humiliations.

The endeavours of economic policy aimed predominantly at maintaining the prices of agricultural products, in spite of the changed position, at a level which would secure for agriculture, or restore it to, a paying basis or better, which would give the farmer a possibility of existence. For this purpose minimum prices for grain and pigs were officially fixed with a conscious divergence from the trends of the world market. In order to achieve this and, at the same time, to adjust the relation of the prices of agricultural products to those of industrial products to the pre-War level, the existing tariffs were cancelled, the duties were made movable up to an almost insurmountable level, and their management was finally put entirely into the hands of the Government. The effects of the duties were strengthened considerably by the compulsion to use home products, especially grain and spirit, and also by fixing quotas for butter imports.

It became increasingly urgent to bring home production and home demand into harmony. In this respect, an increase in demand was sought predominantly through compulsory utilization. Regulation of production followed but slowly, and the beginnings of regulation were restricted chiefly to recommending to the farmer a precise observation and better understanding of the conditions of the market, rational book-keeping, and consequently a suitable adaptation to changes in prices.

The desired price-level was reached most completely in the case of wheat, where the conditions for the effectiveness of the duties were still favourable as a consequence of the high import requirements. They were made still more favourable through the compulsory milling of a certain percentage of home grain, which measure was introduced in the middle of 1929 and was later considerably strengthened.

There were export surpluses of rye after every more favourable harvest. Their sale by means of import certificates became increasingly difficult with the collapse of prices on the world market. The effects of an export arrangement with Poland were nullified by the particularly pressing exports of Russia at the time of the first Five-

Years Plan. In 1929–31 we resorted in certain cases to comprehensive measures for keeping up prices at home through purchasing by the state. But, every time, a temporary improvement was followed by a new fall in prices. The attempt which was made by a law of 1930 to use larger quantities of rye in bread was without success, and was given up again in the following year. Thus, an increased use of rye for feed remained the most effective solution. In order to promote this, barley and oats were raised in price through incorporation in the system of sliding scale duties. We resorted to an import monopoly for maize in order to avoid the current treaty-obligations. At the same time people in the north-west who fattened pigs were encouraged to take feeding-rye by being permitted to import equal quantities of foreign barley at low duties.

These methods could of course only be successful as long as there existed a lasting need for imports of corn for pigs. They kept up the German prices for rye in the years 1929-32 to such an extent that they were finally twice as high as the world market price. There appeared, however, an extraordinarily wide gap between them and the prices of wheat.

As a result, a large increase in the cultivation of wheat at the expense of rye occurred, precisely because the results of the rye policy fell short of the goal aimed at.

The state intervention extended further to potatoes, turnips, cabbages, and animal products. In the case of pigs, the same methods were employed as for grain. Duties were raised considerably for all other kinds of live stock and for meat, and the preferential treatment adopted for the import of frozen meat, which had arisen out of consideration for the poorer sections of the consumers, also disappeared. In spite of that, the prices of beef-cattle fell between 1929 and 1932 from 127 per cent. to 66 per cent. of the pre-War level. The home demand was almost fully satisfied, and the usual consumption of meat could only be maintained at greatly reduced prices. The case of butter was similar, where also the increase of duties and the quotas, which were introduced in 1932, was able to prevent a drop to the level of the world market, but could not prevent home prices from being halved. The quotas for butter imports remained the most important result of the demand of the agricultural representatives, which was very hotly disputed in 1932, to make this method in future the essential plank of agricultural protection and to reject tariff agreements, and the most-favoured-nation clause. The development of the prices of a number of important agricultural products may be seen in the graph on p. 64.

The endeavours, which have been outlined, to secure a planned regulation of agricultural production were mostly based on the view that one could transfer the successes gained through cartels in industry to the various branches of agriculture. This basis is most clearly seen in the case of sugar. Already at the end of 1928, under the pressure of competition from the cane-sugar countries, a prohibitive raising of the duty took place. This, however, was made dependent on the observance of maximum prices at home. Following the Chadbourne Agreement, quotas were placed on sugar production in 1931, and the cultivation of beet was thus indirectly regulated for five years. In this case of sugar the regulation concerned a distinct industry consisting of little more than 200 factories. The conditions for the application of the cartel policy were thus exceptionally favourable.

The plans, however, aiming at the compulsory cartelization with the regulation of production did not stop there. They found their most important expression in the Reich Milk Law of 1930. Clause 38, which came into force the following year, was particularly of lasting importance. It made possible the compulsory union of producers of fresh milk and of those using milk for the production of other agricultural commodities. The associations which were thus created had the right to form 'milk districts' and to fix milk prices. Up to the end of 1932 these regulations had been complied with to the fullest extent in Württemberg and Baden.

The Reich Milk Law also provided for an improvement and standardization of the quality of milk and milk products. Numerous administrative measures were taken in order to achieve this gradually. At the end of 1930, 'general regulations for the improvement of market conditions for German agricultural products' were issued. They formed the basis on which, in 1932, the market grades for eggs, grain, and potatoes were determined.

The measures which had been taken up to the beginning of 1933 by the Ministers of Agriculture, Dietrich, Schiele, and von Braun, had not been based on a uniform plan. Even if they used plans built up according to coherent principles, they only used parts of them. They endeavoured to meet the most burning needs of the moment with measures which it was possible to achieve at the moment, and which could be carried through Parliament. This policy consisted of typical emergency measures, of a system of remedies in which a uniform trait could only be seen in one respect, namely, the increasing influence of the state in prices and in economic life. The desired recovery in economic conditions was not brought about, and could not be brought about by the measures of a single state. Nevertheless the producing capacity of German agriculture was saved from catastrophic destruction and was even in a state of continuous increase, thanks to the energetic efforts of all sections of the rural population. But these honest endeavours were not accompanied by economic success. The peasants were hit especially hard by the low prices of animal products, and the pressing problem of indebtedness was unsolved.

On January 30, 1933, the National Government under the Chancellorship of Hitler was formed with Hugenberg as Minister of Agriculture and of Economy. The policy which it pursued was described very impressively in the Reichstag-Speech of the Chancellor in the following manner. 'The German peasants must under all circumstances be saved. . . . The restoring of agriculture to a paying basis may be hard for the consumer. . . . Only if our agriculture is put on a remunerative basis, which must be done under all circumstances, is it possible to solve the question of protection against forced sales, or of the elimination of debts.'

Through the new regulation of the national fat industry and trade the last big gap which the measures taken against the crisis during the previous years had left was now closed. Objections were raised to the considerable import of oil-fruits and oil-seeds which still remained completely free, and to the food fats and fodder produced from them. In this regard the way which at the end of 1932 had nearly been reached was not pursued any farther, namely, to prescribe, as in the Netherlands, a fairly large addition of butter in the production of margarine. On the contrary, quotas, comprehensively planned, were placed on the production of margarine, and at the same time a consumption-tax was imposed. Out of the receipts of this tax, certificates for purchase at reduced prices were given to persons with small incomes, which section ultimately included one-third of the total population. The duties on margarine and artificial fats were multiplied several times. In support of this policy the import of lard and bacon was also made much more expensive. Additional quotas were granted for the extensive use of skimmed milk in the production of margarine. The prices of oil-cakes were considerably raised by including them in the already existing maize-monopoly.

The policy concerned with the regulation of fat prices was designed to influence all the various branches of agricultural production. The desired increase in the consumption of butter was intended as a support for the milk trade. At the same time, however, the marketing possibilities for pigs were to be increased and, finally, the increase in the price of oil-cakes which to some extent had previously taken the place of feeding-grain was also viewed as a valuable means of maintaining grain prices. The final aim was to decrease the dependence on foreign countries, which now existed to any large extent only in the case of fat, where it amounted to approximately two-thirds, including the imported feeding stuffs. One could count on a lasting success if the very promising beginnings of an extension of home production of protein feeding-stuffs, which had been made possible through an improvement in pasture and new breeding, would justify expectations.

The work of the first National-Socialist Minister of Agriculture, R. Walther Darré, has clearly dominated German agricultural policy since the middle of 1933. He has taken over and supplemented, e.g. in the case of fat, the measures for agricultural protection which had been created by his predecessors.

A larger and more reliable supply of cheap household margarine was secured by September 1933. By prescribing that neutral lard, home-produced, must be used in the production of margarine, the advance in the use of domestic products was still further promoted. Some weeks ago, cartelization of the margarine industry completed the organization.

The beginning, already mentioned, of a planned regulation of the milk supply was supplemented and completed in a very short period. In the summer of 1933 the administrative powers for its operation were transferred from the Länder to the Reich. Thus many hindrances disappeared. The milk trade especially was linked together in organizations. Now, under uniform leadership, supplies and prices are tightly regulated throughout the whole Reich.

Darré's policy, however, was by no means exhausted with the continuation of the policy which had previously been followed; still less is the adapting of foreign measures, which can be observed here and there, essential to it. Furthermore, Darré has not derived his measures merely from the general outlook of National Socialism, or its programme pronouncements. They show roots of their own beyond that.

Let me first of all describe shortly the impressive structure of market and price regulation which has been built up in one year; I shall later develop the basic principles which have determined its outline and content.

The fairly uniform system of market regulation for the most important products has lead to the building up of four central associations: for milk, eggs, beef-cattle, and grain. In addition, several special branches of the food industries have been brought together in associations, e.g. the producers of fruit and vegetable preserves, the fish industry, and the margarine industry.

The central associations have their head-quarters in Berlin and have powers for the whole Reich. Associations affiliated to them cover every area, fifteen in the case of milk, and nineteen in the case of grain. The milk and beef-cattle associations have in their turn a great number of local branches.

These organizations are compulsory cartels. The scope of the membership is widest in the case of grain. The producers, millers, middlemen, and bakers belong to this association. In the milk association, producers, dairies, and milk-dealers are also brought together. The associations for the disposal of eggs and beef-cattle, on the other hand, do not include the producers but chiefly the merchants and the co-operative societies, though the producers of beef-cattle have to comply with the regulations of the marketing associations.

The whole organization is run on the principle of leadership and discipline. The responsible persons are not elected but nominated by the presidents of the superior bodies in agreement with the 'Reichsnährstand' (i.e. the corporate organization of agriculture). They are all under the supervision of the Minister of Agriculture. Discipline and high penalties secure the observance of uniform administration. No upsetting of the plans by outsiders is tolerated.

In the case of potatoes, vegetables, and fruit, special organizations of the type just described have been constructed only for the processing industries. These, however, use only a very small portion of what is grown. For the rest, special associations for market regulation have not yet been built up. The Reichsnährstand, however, has the power to regulate the grading, loading, delivery, and storing and to fix prices and price margins. It has placed this task in the hands of a special Reichs-Commissioner.

A special kind of state management which supplements and completes the activities of the central associations consists in the regulation that commodities can only be brought to market with the sanction of a special government body. Such a procedure was first introduced through the Maize Law of March 26, 1930. It laid down that foreign and home maize must be offered to the government maize office for sale. In this way the price of maize was raised to a level fixed by the government. In March 1933 oil-yielding fruits and seeds, oil-cakes, oils, and fats, were included in the scheme. At the end of 1933 the system was extended to butter, cheese, and eggs, and was planned for beef-cattle in March 1934.

The procedure is such that the responsible government body to which the products have to be offered for sale issues a certificate of acceptance which gives the right to proceed with the sale of the commodity at home.

The forcing of the goods which are imported from abroad through a government body makes possible a control of the imports in quality and price, and therewith a regulation and—if necessary—a limitation of the imports, corresponding to the requirements of the German market. The fixing of the buying and selling prices lies with the Minister of Agriculture. He brings the sale price of the foreign commodities into line with the home prices.

But the commodities produced at home are also drawn into the system of these certificates of acceptance, for a discriminating treatment is impossible owing to the trade agreements. Thus the government bodies can obtain an exact knowledge of the home production and employ this in a consciously directed market policy. The government bodies have the right to refuse to accept a commodity and thereby to exclude it from the market, and they can also prescribe that a commodity may only be sold in certain areas.

Thus the marketing channels and the fixing of prices for all the important agricultural products are now regulated on a planned basis. The Reichsnährstand has throughout a decisive voice in the execution of all these regulations. A few remarks on its nature and structure are therefore required.

The Reichsnährstand as the legally recognized representative of the entire group of agricultural occupations has incorporated or replaced the numerous associations of German farmers which, with quite diverse aims, were formed in the second half of the nineteenth century; for example, the Reichslandbund, which were formed for influencing economic policy but which also pursued cultural aims; the Landwirtschaftskammern, formerly the representative farming bodies; the co-operative societies with economic and educational aims; and the Deutsche Landwirtschaftsgesellschaft, which renders a great service to technical development. The Reichsnährstand further in cludes the distributive trades, both wholesale and retail, in agricultural products, and all those engaged in the conversion of agricultural products. Its leadership is in the hands of the Reichsbauernführer (the Reich-Peasant-Leader), who is nominated by the Chancellor. The Reichsnährstand is under state supervision exercised by the Minister of Agriculture. Darré unites in himself the offices of Minister of Agriculture and of Reichsbauernführer. The sub-divisions of the Reichsnährstand reach down to the smallest administrative districts.

The important law of September 13, 1933, is the foundation of the planning of the market, which has been sketched above. This is already expressed in its title, which reads 'Law on the preliminary construction of the Reichsnährstand and on measures for the market and price regulation of agricultural products'.

The powers given to the Minister of Agriculture in this Reichsnährstand law are for the most part similar to those which were given to the Reich-Minister of Industry and Commerce by the law on compulsory cartelization (August 15, 1933) outside agriculture. In both cases there appears the clause, repeated in every by-law, according to which no compensation for losses due to the new regulations can be claimed from the Reich. In fact, the Reichsnährstand has quite correctly been called a compulsory syndicate for the whole of agriculture. For there is a great similarity with those associations which are well-known in industry, and which we are accustomed to call cartels or syndicates. A common starting-point can also be noted. In heavy industry cartels came into being as 'children of depression'. As long as the factories constructed with such a large expenditure of capital were left to themselves, each was inclined to cope with an unfavourable development of prices not by reducing production but rather, whenever possible, by an extension of production in order to save the invested capital in spite of temporary losses. Agriculture, and especially the peasant who runs a farm with the help of his family only, is also led to try to compensate for the collapse of prices, which does not limit itself to isolated branches of his production, by increasing the quantity produced. In his case, it is true, this takes place not so much out of consideration for the capital invested, as out of attachment to the native soil, and the necessity of supporting the members of his family.

The similarity between the Reichsnährstand and industrial syndicates has, however, definite limits. The administration is incomparably more difficult, because there are millions of farms with a variety of products dependent on the weather and because farmers have had little practice in the common solution of their market problems. The system organized by the Reichsnährstand, therefore, purposely does not prescribe precisely the extent and direction of production. It limits itself to the fixing of prices, although, at the same time, only those quantities are taken from the producers which can be disposed of at these prices, and which correspond, as it is expressed, 'to the economic requirements of the country'.

But above all, the Reichsnährstand does not have the task of squeezing out the most favourable price for agricultural products. It is not its object to represent the interests of a group of producers. It has rather the task of bringing about an arrangement which will serve the common good. Its work is therefore not to secure high prices but to fix just prices.

The Reichsnährstand binds by its market regulation all agricultural producers. Its chief task, however, lies in its service to the peasantry, whose legal position is secured through the law of hereditary peasant-holdings (Reichserbhofgesetz) of September 29, 1933. According to Darré's words, the agricultural community cannot and should not take part in the game of price speculation; it must not be exposed to the dangers associated with it. Being the source of pure blood and the maintenance of the German people, the peasant is to be firmly rooted in his soil with the help of a law worthy of German peasants, and he is to receive just wages for his work, i.e. adequate and just prices.

In the demand for just prices the efforts of the best fighters and thinkers since antiquity come to life again. Since the earliest times, efforts have never been wholly dormant, so that even in the days of liberalism, justice has been the central aim of social ethics and financial theory. In economic theory, it was not stressed to anything like the same extent since Adam Smith as in the medieval schools, because it was believed that justice would be achieved through a price arrived at in free competition without any special intervention of the state. But the renewed emphasis on justice is not merely a repetition of thoughts and measures of earlier days. The market policy of the towns, and later of the princes, in the Middle Ages and in the time of mercantilism, did not usually include agricultural products, but was limited in the main to fixing the manufacturing costs of bakers, butchers, and brewers.

There is also no doubt to-day that justice cannot be directed by the efforts and costs of every individual producer. It is true equalization charges which will counteract the particular advantages of certain places are provided for, in the case of milk for example. But the gradation of grain prices is very clearly related to the differences in the favourable position of the market, which have arisen under the régime of free prices. It does not occur to any one to pay the cultivator of poorer soil a higher price on account of his greater exertion. That would not be compatible with the common good, and it is exactly in accordance with the National-Socialist idea that the content of justice must be determined by the common good.

Precisely from this starting point, one should not expect that the just price can be calculated in figures. The possibility of determining the just price mathematically was already denied in the discussion of former centuries. But it remained as a fundamental demand: *justum pretium licet Deo soli notum.*

The agricultural price and market policy in the new Germany has a socialist character in two respects.

1. The peasant is divorced from capitalism. His products are withdrawn from the free play of prices, so that the peasant mentality, the feeling of responsibility for the race, people, and native soil do not become disintegrated through the calculating thoughts of the trader. Thus it follows that in future no peasant can lose his holding merely through lack of economic success, and be driven out by the court-bailiff. The decision as to who may or may not produce as a peasant is taken out of the hands of the creditor, and put into the hand of the peasantry as a group under the supervision and co-operation of the state. The peasant has to leave his farm only where he is found guilty of conduct unworthy of a true peasant. It is true that this follows only for the owners of hereditary holdings, while the larger and smaller farmers, although they are subject to the price policy of the Reichsnährstand, still live under the old laws of property and inheritance, and are only temporarily protected against eviction.

2. But in addition to this peasant and anti-capitalist character, the price policy outlined deserves to be called socialist in a further sense. It endeavours to make secure the *Societas*, cohesion in the life of the nation and the state and consequently also in the economic life. As long as people had implicit faith in the working of the free play of forces a special policy of this kind could be dispensed with or kept within narrow bounds. But this faith has disappeared; not, as it is often declared, because the liberal system was bound to break down economically, but—what is much more serious—because its moral preconditions were wanting. This decay goes back to the time before 1914; otherwise the Great War and the method of its conclusion would have been unthinkable. No matter what an economic system, left to itself, can achieve materially, if it is felt to be a source of injustice, if the moral shortcomings of its representatives provide continual nourishment for such a view, then it is bound to destroy all political and social unity, and a dreadful chaos is imminent.

This danger has become especially menacing for Germany since the War for the reasons which have already been given above. National Socialism and the policy of the Reichsnährstand are clearly and powerfully concerned with overcoming it.

One does not expect a moral basis to be created or brought into life again with the continued existence of a liberal economic order. Thus the measures which have been taken are based on a certain belief; they are designed to help the education of the people to a new economic outlook as well as to ensure the confidence of members of the community. This is shown, for example, in the fixing of grain prices for the harvest of 1934, which is not very good. There is scarcely any rise of prices compared with those for the record harvest of the previous year, because it was resolved that bread should not be made more expensive for the consumers. The peasant, on the other hand, has to fulfil his duty as a soldier in the fight to maintain the nation even if the monetary return is not always up to expectations.

The general will to create stable prices is very strong, especially to give the farmer an assured income and a reliable guide for the planning of his production. It is clear that in this way the income of the producers will not remain the same from year to year with varying harvests. But one expects a balancing out on the average of good and bad harvests. For not only are temporary fluctuations of prices caused by speculation to be eliminated, but also the differences which arise from changes in supply and demand, from one working year to another.

It still remains open how far the new regulation is to be extended beyond the sphere of agriculture. The government of the Reich declared, when it issued the law of the Reichsnährstand, that this was a special regulation which corresponded to the peculiar position of agriculture and especially of the peasantry and that it was not intended to transfer it to other branches of economic life. On the other hand, important persons in the Reichsnährstand have expressed views from which one would conclude that the price policy followed here is the real National-Socialist one and that its gradual extension to other spheres is thus to be expected. In any case, the policy of the Reichsnährstand recognizes clearly the limits to the possibilities of state interference. This is obvious from the fact that it avoids direct intervention in agricultural production. The Minister of Agriculture has pointed out that the ability and the will of the individual to produce should not be hindered in any way. Thus, the economic raising of the peasantry, which is demanded in the programme, is regarded as obtainable only if an adequate degree of freedom remains for the endeavours and work of the individual within the framework of the state regulation.

The economic success which is expected to reach and exceed the achievements of the free play of forces, and which is also indispensable for the maintenance of confidence, cannot be assessed yet as there is only one year of experience.

It cannot yet be calculated how high the costs of the new organizations will be. They will be well worth while, if the forces put into them are able to fulfil completely the tremendous tasks, if they work together without friction, if they are models of ability, knowledge, and character, which is, indeed, what the Reichsnährstand is demanding of its instruments.

It is of course a matter of supreme importance that the aims of the new socialism should be psychologically and economically capable of fulfilment.

Marketing organizations, the models of which have developed in America and Denmark, must if necessary be adapted to the conditions of an intimate relation between town and country in order to avoid unnecessary expenses. The necessity of using many products which cannot be sold at the fixed prices on one's own farm should not make production more expensive. What is earned from a stable price and saleable quantities has to guarantee an adequate income. Fluctuations in the income arising from fluctuations in the quantity of marketable products must be balanced by a suitable organization of credit, especially as its previous basis has been altered through the abolition of forced sales of the peasant holding and its implements. Rural families, especially those with a large number of children, should be allowed to increase their income, if necessary for the maintenance of their children, without getting into conflict with fixed regulations. Indeed, the rigidity of the regulations should not go so far as to hinder the recovery from the depression and the beginning of an upward trend.

But the moral attitude of every person engaged in production has also to be changed and ennobled if the success of the new policy is to be guaranteed. Socialism cannot work beneficially with men who are guided only by personal interests or even only by consideration for their family. They would only exert themselves for the sake of profit or under pressure of debt and would always be thinking of the best way to get around the provisions laid down. The tasks of education are therefore the presupposition of all socialism and every planned economy. Men cannot be led to willing co-operation through external regulation and the threat of punishment. They must co-operate from their innermost being. The reviving of noble traditions and national enthusiasm can do much. But human hearts can be changed only by a power which is spiritual. How far this is possible cannot be shown by science.

The economic accomplishment of every nation, and especially of one which has to live on a small and not very productive area, needs to be strengthened by an international division of labour. The Reich-Peasant-Leader has expressively emphasized that the German peasants can understand the peasantry of other nations. He praised the new agricultural legislation precisely because it alone made possible an economic understanding with our neighbours and therewith the ensuring of peace in Europe. High moral tasks are thereby set to the whole world. Otherwise the confidence which is also necessary for economic recovery cannot return. What the political leadership of the Reich thinks on this subject is put very strikingly in the important speech of the deputy of the Leader on July 8, 1934, in Königsberg, when he said: 'Unemployment with its social misery'—and we can add: the depth and duration of the internal agricultural crisis—'is caused above all by too small an exchange of goods between nations, which is always hindered by lack of confidence. Just as little as the War, and the continuation of the War by other means under the name of "peace", benefited the civilization and the well-being of the nations, just as much, on the other hand, will a true peace benefit every one.'

ITALIAN AGRICULTURE AND THE CRISIS

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AFTER the detailed report of His Excellency Professor Arrigo Serpieri, I shall confine myself to a short description of the characteristics of Italian economic life and of its reactions to the crisis in order to state those principles which, in my opinion, deserve the special attention of the Conference as far as the first subject of our meeting is concerned.

MAIN CHARACTERISTICS OF ITALIAN AGRICULTURE

The incongruity between the density of population and the poorness of the soil is of decisive importance to Italian economic life. The soil contains very few useful minerals and is little adapted to cultivation, as it consists for the most part of hills and mountains. On its surface of 31 million hectares there live more than 42 million people (135 inhabitants per sq. km.) This surface consists of four-fifths hilly and mountainous country and only one-fifth plain, the latter moreover being infested with malaria to a high degree in south and central Italy. Nevertheless, the agricultural and forest lands occupy a surface of 28·5 million hectares, of which 15 million are arable land while the rest consists of meadows, pasture lands, woods, and uncultivated agricultural land.

The first main characteristic of Italian agriculture is thus the considerable quantity of cultivated soil in a country in which the hilly and mountainous districts form so great a part of the total surface.

Of the surface occupied by agriculture, cornfields make up 12·8 million hectares, of which 7·7 million are exclusively cultivated as cornfields, while 5·1 million are inter-cultivated with 'wood plants' (olives, &c.). The specialized cultivations of wood plants amount to 2·2 million hectares.

This shows the second feature of Italian agriculture, viz. that agriculture consists to a great extent of the simultaneous cultivation of different sorts of cultivated plants.

In spite of the extensiveness of mountainous districts only 5·5 million hectares in Italy are covered with woods, i.e. hardly 19·5 per cent. of the soil used for agriculture or forestry, whereas arable land takes up 52·8 per cent., and pasture lands, meadows, and uncultivated soil amount to 27·7 per cent.

The number of inhabitants directly engaged in agriculture constitutes nearly half the entire population of Italy.

The cultivated soil is almost exclusively private property. The property of the State, of the Communes, and of other incorporated bodies includes mainly forests, meadows, and uncultivated land, especially in the mountainous districts. In upper and central Italy we find property much divided up and agriculture carried on more intensively and under heavy capital investments, particularly in the plain of the river Po. In south Italy and in the islands, especially in Sicily, there are, besides the big estates cultivated extensively (Latifundia), small holdings which the peasants have brought by an enormous amount of work to a very high degree of intensity, particularly in the cultivation of fruit-trees.

We have to point out as a further characteristic of Italian agriculture that highly intensive cultivation is nearly always the result of two main causes: either it is the consequence of heavy capital investments in magnificent works for the drainage of the soil or in equally magnificent works for its irrigation, or it is the result of diligent work often carried on for centuries by men who have created new districts of cultivation frequently in the midst of rocks and by victorious struggle against extraordinary climatic difficulties.

An agrarian reform proper, similar to that of other countries, has never occurred in Italy, but there has been a continuous dividing-up of landed property all the same. Immediately before the War there was already begun, without participation of the State, a transfer of land to the small farmers, which increased immensely after the War. My colleague, Professor Lorenzoni, will report on this development.

In addition to it, the *Bonifica Integrale*, which undertakes the complete melioration of all districts of the country capable of cultivation but hitherto unproductive and which is a magnificent enterprise of the State, helps to diminish the number of big estates. The 'National Undertaking of Ex-service Men' (*Opera Nazionale Combattenti*) also produces a large number of small holdings through the clearing of the Pontine Marshes and through other works. It is generally seen to that the land is not given away for nothing to untrained masses, but that it is gradually acquired by the work of people able to work their way up from simple labourers to farm-managers and small landowners.

In all parts of Italy, though particularly in the mountainous districts and some special regions, like Sardinia, there exists besides too much dismemberment of landed property, an excessive splintering of allotment holdings against which there is as yet no legal provision like the German *Feldbereinigung* (compulsory exchange or purchase of land so as to have as few small pieces of property scattered about as possible).

As regards relations between people employed in agriculture, especially between landowners and farm-labourers, it is worth stressing the fact that in Italy the farm managed by the owning family alone and the system of agricultural co-partnership (*Compartecipazione*) are widely spread. In Italy there belong to those family farms, besides the small freehold farms, the small rural leaseholds and farms held by leases under which the peasant pays a proportion of the produce as rent. A very common and typical form of the latter is the *Mezzadria* or half-share tenancy. The *Compartecipazione*, the system of agricultural co-partnership, includes quite a number of different ways of assigning a share of the output to the workers instead of paying them wages. In times of crisis, this system has proved to be very practicable. But even in places where workmen receive cash wages, as is the case with the big estates extensively or intensively cultivated, workers who are permanently employed receive a part of their wages in agricultural products.

THE EFFECT OF THE CRISIS ON AGRICULTURE

Italian agrarian production includes three main categories of products, namely:

(i) The products of grain-cultivation.
(ii) The products of stock-breeding.
(iii) The products of the cultivation of fruits, vines, olives, and vegetables.

These products are partly destined for export, which has been reduced through the restricting measures of the importing countries. This export consists mainly of vegetables, fruits, products of the silk industry, hemp, potatoes, tobacco, tomatoes, dairy products, rice, macaronis and other food-stuffs made of dough.

The import of agricultural products consisted mainly of wheat, till the struggle for self-sufficiency in wheat, ordered by the Duce, had been won. To-day, our chief imports consist only of maize, cattle, meat, eggs, poultry, wood, and oilseeds.

In addition to this, Italy imports cotton and wool for finishing at home, while a considerable amount of textile products, including goods made of natural or artificial silk, are exported.

Furthermore she imports for her industry a considerable amount of coal (despite the magnificent increase in the home production of electricity through the use of hydraulic power) as well as of mineral oils, iron, copper, &c.

The export trade since 1929 has continuously decreased, shrinking in 1933 to nearly one-third. This is particularly due to the restrictions of imports in all countries which endeavour to gain national self-sufficiency and thereby cause a steady decrease in the international exchange of goods and in international services.

Economic liberalism is continuously giving way to an economic policy which, without any regard to dogmatic considerations, endeavours to cope with the present difficulties. It is in this connexion that the exchange of goods between countries of different natural conditions, or with a different development of agriculture and industry, obtains a particular importance.

In Italy, as in the rest of the world, the main symptoms of the crisis are the following: a fall in the price of products without a proportionate decrease in the cost of production, resulting in an incongruity of prices and costs; a heavier retrogression in the prices of agricultural products than in those of industrial products; wholesale prices going down faster than retail prices, and this in spite of the increase in the number of retail shops, a fact which has completely disproved the theory of the equalizing influence of free competition; finally the increase in unemployment, which, however, is far smaller than in many other countries, thanks to the steps taken by the Fascist Government. The powerful action of the Government and the setting up of the corporative system—to be dealt with later—have alleviated the consequences of the crisis to an extent which is difficult to measure, as it would be necessary for this purpose to ascertain precisely how Italian economic life would have developed under the guidance of pre-Fascist principles and institutions.

The decline in prices of agricultural products has been especially pronounced in all cases where production exceeds home-demand. As these products simply have to be exported, a tariff-wall is of little use against them. For some products, e.g. rice and silk-cocoons, the Government has granted direct and indirect premiums for both export and production.

The fall in prices of agricultural products was out of keeping with the decrease in costs. Accordingly, there has not only been a sharp decline in the social income of agriculture but also a change in the distribution of this income between capital and labour, as the cut in wages, especially those paid in cash, was not proportionate to the decrease of prices and products in many agricultural enterprises.

The inquiry into the distribution of income in Italian agriculture, which I have carried out for more than ten years, has produced the following results.

If we divide the four years 1925–8 into two equal periods, the first of which, 1925–6, is marked by inflation and increasing prices, the second, 1927–8, by deflation, stabilization, and declining prices, we see that the yield of agricultural enterprises in the second period is one-fifth or one-fourth, partly even down to a third, of that in the first period.

As regards the distribution of the yield between capital and labour, a decided difference between the various systems of enterprise, according to the type of contract between owners and farm-hands, becomes conspicuous. Under the system of *métayage*, and generally under all systems where the worker is paid by a part of the output, the income of the labourers fluctuates according to the total yield, and the same obviously holds good for the revenue of the owners. In those enterprises, however, where the worker is paid in cash, wages now form a relatively larger part of the net yield. This diminution of the owner's share means a definite shifting of the distribution of the yield towards the worker. Here we see the importance of the different systems of payment (fixed wages in cash or in products, or share in the output) in the distribution of the total yield.

Of course, the results of these facts gained by our inquiry differ locally as well as according to the classes concerned. The decrease in the yield is felt less by those who directly consume the products of the farm than by those forced to sell them. The retrogression of the money yield is of no importance to the man who consumes the whole output *in natura*, while it matters a great deal to those who have to dispose of this output. Between these two extreme cases there are innumerable possibilities.

The results of the shrinkage of returns is very often emphasized for the owners by the fact that taxes have not been lowered to the same extent as prices or returns, and their profits are thus still further diminished.

In the four years 1929–32 we find another fall in the total yield of agricultural enterprises owing to the continuous decrease in prices, not equalled by a corresponding decline in the costs of production. This fall, however, has been alleviated by the measures which the Government has undertaken in order to help agriculture.

Thus a moderation of that change in the distribution of the total income, mentioned above, has been achieved even in those enterprises where the workers receive cash wages and are not tied to the soil by a share in the output, as the wages have been more and more adapted to the new organization of the enterprise. Though they have not been cut to the same degree as prices and net yields, they have been lowered to such an extent as to alleviate, or at least not to increase any further the difference between the income of owners and that of workers which we found for 1927–8 in enterprises paying their workers in cash.

THE MEASURES FOR THE ALLEVIATION OF THE CRISIS

The Fascist Government has endeavoured to alleviate the crisis by two kinds of measures, first by the protection of prices, secondly by a progressive adaptation of the costs to the altered value of money. In doing so, they revealed the great importance and the great effect of the syndicalistic constitution. For it succeeded in bringing about by strict discipline and collaboration of the two parties concerned a reduction of wages and rents in keeping with the changed situation.

For the protection of prices the Fascist Government, unlike other countries, has never—apart from exceptional cases—applied high tariffs hindering the exchange of goods by quotas or total bans. For the Government believes that the exchange of goods and services between different countries is a necessity of modern economic life.

The Government has alleviated the heavy indebtedness of the farmers by two measures. Without diminishing the legal obligations of the debtors it has made it possible to settle the debts according to plan, and it has made grants for the payment of interest in certain provinces with a particularly heavy indebtedness or in especially difficult individual cases.

The struggle for an Italy self-sufficient in grain and the *Bonifica Integrale*, which have been undertaken for the improvement of agriculture, are marvellous achievements of the Fascist Government.

This struggle, ordered by the Duce in 1925, has increased the average yield of wheat from 10·5 dz. per hectare in pre-War days, to 16 dz. per hectare in 1933, and has thereby succeeded in making Italy independent of the import of foreign wheat. This result is the more remarkable as grain is to a great extent cultivated in hilly or mountainous districts, and the annual import of wheat had increased from 13 million dz. in pre-War days to 26 million dz. before the beginning of the 'battle of grain'. The action spread over all Italian agricultural districts, once the first aim of the struggle, viz. the increase in the total production by an increase of output per unit of land, had been achieved.

The *Bonifica Integrale* aims at the cultivation of the marshes and the melioration of all land extensively cultivated. At present this tremendous action deals with 4,275 million hectares. From the beginning of the Fascist era until July 1, 1933, 5,270 million lire were spent on it. The best way of appreciating this achievement is to realize that the Italian state spent only 1,782 million lire for the improvement of the soil before the Fascist era.

Together with the general 'back to the land' programme, with the closer connexion of the peasant with the soil, and with the Government's population policy, the *Bonifica Integrale* is a boon for the whole of Italian economic life.

The construction of the corporate state is the great political creation of the Fascist revolution, of which it forms the historical and social substance. This creation will, in the course of time, influence most strongly the economic life and, especially, the agriculture of Italy. The corporations are, according to the definition of the Duce, 'an instrument used by the State for the organic and uniform leading of the productive forces so as to increase the wealth, the political power, and the well-being of the Italian nation'. The corporative system is 'the disciplined and, for that reason, controlled economic life (as discipline without control is inconceivable). It overcomes socialism, it overcomes liberalism, and it creates a new synthesis.' It levels the opposite tendencies of classes and groups in the higher interest of the community.

Eight of the twenty-two corporations are concerned with agriculture, viz.

The Wheat Corporation.
The Corporation for Stock-breeding and Fisheries.
The Corporation for Horticulture and the Cultivation of Fruits and Vegetables.
The Corporation for Vine-growing.
The Corporation for the Cultivation of Olives and Oilseeds.
The Sugar-beet Corporation.
The Corporation for Textile Vegetable Fibres.
The Forestry Corporation.

The corporations will get to work on November 10 of this year. They consist of the syndicalistic organizations, in which all producers are included, as well as of organs of both Government and party, and they have to lay down the economic principles necessary in the higher interest of the community, for the organization and the directing of production.

Finally, I think I may state that the economic organization of today aims more and more at a regulation and a supervision of both production and distribution, which we can no longer leave to the free play of economic forces. The egoism of classes and groups must give way, without detriment to private initiative, to the higher interests of national life. But though you cannot dispense with discipline and regulation if you want to avoid the disadvantages of unrestrained free competition, you must not allow them to prevent the healthy selection of branches of production and factories, which constitutes a vital condition of all economic progress.

A planned regulation of production and distribution is particularly important to agriculture, suffering from a crisis of over-production, which has moreover to fight against the legal and illegal competition of substitutes which reduce the value of the genuine agricultural products obtained by so much toil. A typical example of this is the competition which Italian fats of animal or vegetable origin have to encounter from substitutes. A great part of the European continent suffers from a crisis in dairy products which has the most serious repercussions on stock-breeding, whereas the competition of margarine fats is continuously increasing. In the same way, a part of the Mediterranean oil-cultivation is very much depressed by the competition of rapeseed-oil. In many countries of central and north Europe (in the case of dairy products) and south Europe (as regards oil-cultivation) these products are of supreme importance. A regulation of the economic life, which aims at achieving a maximum of profit for its own nation, and which does not expect that achievement to arise from a chaotic and often fatal clash of opposing interests, is bound to judge the opposing economic forces by their importance to the community and to prevent small advantages from jeopardizing or destroying many larger and more important interests.

Of course, the home regulation of production and distribution must needs influence the export trade of the various countries. At present we are living in a period of increasing shrinkage of world trade, as all countries are endeavouring to obtain still greater economic independence and self-sufficiency. It seems inconceivable to me that economic liberalism, which has suffered a serious defeat at home, will be able to maintain its position in economic relations of foreign countries. The most-favoured-nation clause has really experienced such qualifications that it has frequently become a mere slogan used by everybody; but hardly anybody is really upholding it.

On the other hand, nations which have organized their economic life according to plans and who want to regulate their economic relations with other countries, will have to conclude compensating-agreements. Such agreements will be of great importance for the maintenance of international trade, because they will make possible an economic exchange between countries which supplement one another with regard to the goods they want to export and import.

These are the principles of internal and foreign economic relations which I have gained from experience in our eventful days and which I recommend to the attention of the Conference.

Index of Prices of Agricultural Products in Italy

1928 = 100

	1929	*1930*	*1931*	*1932*	*1933*
Wheat	96	94	75	82	69
Rice	96	74	62	67	55
Maize	87	62	50	62	45
Potatoes	101	63	88	72	38
Hemp	86	62	42	47	50
Wine	65	48	38	37	32
Oil	80	65	73	62	57
Beef[1] (live-weight) . . .	108	98	74	62	57
Veal[1] (live-weight) . . .	111	107	74	62	61
Pigs[2] (live-weight) . . .	99	78	54	55	58
Manufacturing milk[3] . . .	94	75	70	59	51
Butter[4]	99	81	70	61	52

[1] Average price of second quality on Milan market.
[2] Average price for live pigs on Milan market.
[3] Average of markets of Piacenza, Lodi, Cremona.
[4] Average price on the Milan market.

REGULATION OF AGRICULTURAL PRODUCTION IN HOLLAND[1]

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IT is not possible, in the short time at my disposal, to give a complete account of the measures which the Dutch Government has introduced to mitigate, as far as possible, the effects of the agricultural crisis. I will try to present in its main outlines the programme which has, I ought to say, gradually come to be visualized. Before I attempt to do this it seems to me desirable that I should describe the position of our country.

Dutch agriculture may be considered as one of the most intensive in the world. It is largely devoted to the production of high-grade products, but apart from that we have intensive cultivation in the form of horticulture, and also arable farming. The character of the population and their great technical knowledge, acquired largely through the instruction which the government has given in the sphere of teaching and instruction in farm management; the position of the country, the climate and the nature of the soil and no less the development of the neighbouring countries made Holland a very important exporting country for agricultural products. Among the most important articles of export, grown on farms which go in for the cultivation of high-grade products, are dairy produce, meat, eggs, living animals, and animal products. In addition to these we have garden produce, and many imagine that the possibilities of export for Dutch agriculture are therewith exhausted. But this is not the case. The products of arable farming are exported both in the natural and processed forms. I may point here to potato-flour, straw-board, peas and beans, seed potatoes, ware potatoes, and so on.

If the crisis had been one of a more or less lengthy period of low prices, things would not have been thrown into such terrible confusion. The blow would naturally have been serious, but if the export trade had not been hit as well, Dutch agriculture would soon have recovered under free competition. That follows as a matter of course because an exporting country by its very nature has low costs of production. Without them the export trade of Holland could never have developed. What is true of Holland in this respect is true also of the other agricultural export countries, although the causes of the low costs of production differ in each country. I have already mentioned above the causes in Holland.

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[1] The writer of the paper was unable to attend, and the Conference was indebted to Professor G. Minderhoud, Agricultural College, Wageningen, for reading the paper on his behalf.

Unfortunately, however, the crisis was not merely a period of low prices. Either as cause or as effect (we need not decide here which), we had the restriction of the international exchange of commodities. The free development of the export trade was thereby brought to a stop, and at the same time any idea of unhindered competition with the agriculture of other countries vanished. We are, therefore, compelled to take quite different factors into consideration.

The considerable export of agricultural products was made possible only by the import of large quantities of raw materials and foodstuffs. Holland has a very dense population. On an area of 33,000 square kilometres there are 8 million inhabitants; 243 persons per square kilometre (Germany, 138). In order to feed this population and to produce export goods, it has been necessary in recent years to import corn and artificial feeding-stuffs to the extent of nearly 4 million tons, which means about 1,800 kilograms per hectare of cultivated land. I think that this figure has been surpassed by hardly any other country.

The Dutch Government hesitated for a long time before embarking on crisis measures or any sort of protection for agriculture. Holland has grown great through the free-trade system, and has unwillingly had to break completely with it or at least to tamper with it. The Dutch Government was compelled to leave the path followed hitherto only when the situation for agriculture became desperate. At that time—it was three or four years ago—it was obviously not clear at all what course things would take. Comfort was found in the thought that the crisis would be serious, but would not have permanent results. The measures at first taken were thus quite in accordance with this belief. Gradually opinion changed and one became accustomed to think of these measures as being of a permanent character. Of course, no one can see into the future and no one knows whether the changes which have taken place are really permanent, but it is at any rate certain that there can be no return to former conditions within a measurable space of time, if at all.

Starting from these premisses we have to ask: What can and ought a country, living under circumstances such as those under which Holland lives, to do in order to protect its agriculture as much as possible during the crisis? When one considers these things one is struck by one circumstance which is becoming more and more important. It is not only that the international exchange of goods has shrunk; the manner in which this takes place has also changed. All the measures which the various governments have taken in the sphere of international trade—quotas, control of exchange, clearing, and so on—have resulted in the fact that what one used to call the normal course of trade disappears more and more. Measures taken in import countries make necessary retaliatory measures in the export countries, and such measures result in a more and more extensive interference with the economic life and especially with the international exchange of goods. It is almost certain that this interference will take on ever greater proportions and that governments will influence more and more, as time passes, the way in which the exchange of goods takes place.

Export countries like Holland will have to realize that the export trade will no longer be able to develop in the accustomed way. The diminution of exports means the decline of production and reduced opportunities of employment. All countries at the present time are carrying on a struggle against unemployment, and the attempt is being made, and must be made, to compensate this decline in jobs on the land by increasing the opportunities for work in other spheres. The attempt must, therefore, be made to produce a greater quantity of those things of which at present the home supply is insufficient. This process will in the course of time affect countries like Holland more and more. The import of grain, cattle-cakes, and similar products will decline and this, above all, because the production of high-quality products is declining, but also, in the second place, because the country will have to obtain more from its own land in order to keep up employment in agriculture, that is to say, to make it possible to maintain its highly developed agriculture at the level it has reached. This naturally reacts on the countries which have up to now exported agrarian raw materials. I will not discuss further the reaction of these restrictions on the export of agricultural products and on the import of industrial products, but here too the same tendency is noticeable. The question is: What is to be done in practice? We may sum up all that has been said in the following conclusion, that there are three things that have to be seen to:

1. In the time of crisis agriculture has to be given a basis for existence.
2. A change in the direction of production is necessary.
3. The export trade must, as regards its form, adapt itself to changed circumstances.

In so far as the products are imports one can, of course, maintain prices comparatively easily by raising customs duties. This method will not work when the products are articles of export. If it is desired to raise the prices of such products, an export premium or export subsidy is necessary. There once was a time when one hardly dared to mention such things, especially in an international assembly. To-day we have become so accustomed to export premiums of all kinds that we no longer need to be ashamed of them. If we consider the matter closer we soon see that a country like Holland, where the export of agrarian products is such a large proportion of the total production and which, with some articles, plays such an important part in the world market, cannot grant export premiums without careful consideration. The state exchequer, from which these premiums would have to be paid, could not stand it, as it is already exhausted without them. For the time being, therefore, financial considerations force us to find other means to make the home consumer pay a higher price whilst on the foreign markets goods are sold at as high a price as possible, but at any rate sold. The losses sustained must be made good by the higher price at home. For a country like Holland, which has kept its gold standard, this is of the greatest importance, for an exporting country like Holland is naturally concerned to defend its possibilities of export as long and as energetically as possible. This can be done by continually adapting oneself to the ever-changing export conditions. One must not forget that for various articles there is no longer a world market. One has, therefore, to sell the same article at different prices on different markets. If the price obtained in the country with the lowest prices is not to set the standard for the home market—because thereby the exporters to other countries would make big profits—measures will have to be passed to make this impossible. Holland believes she has discovered a means of doing so by monopolizing the export of various products.

This monopoly is in a position, by making use of the normal channels or by creating its own ways of marketing, to maintain the existing markets, and eventually to win new ones. The monopoly has, thereby, to adapt itself to the conditions of the international market, which it generally cannot change. The contributions from the home consumers can be obtained in different ways, by a direct levy on the price of foodstuffs as well as by reducing the supply for the home market which automatically brings about a rise in prices. In Holland we have experience of both systems.

We have a number of levies on dairy products, which levies are used to provide a subsidy on the milk produced. In practice, the world market serves Holland as a basis for the price of milk products. To this price there is added an extra sum paid by the consumer, and the yield of this levy is distributed over all the milk produced. This system results in the peasant getting less than one would expect at first sight on comparing home prices for the finished product, as of course the home levy is not obtained on the export article, whereas the raw material used in its production counts against the total sum to be distributed.

Holland has applied another system to the trade in pigs. This was to monopolize the export trade and to try to maintain a proper price on the home market. The exports resulted in a profit in some countries and in others in a loss, but on the whole there was a loss, and this loss was made good by a levy on the slaughtered pigs consumed at home.

But all these measures, which should bring about a rise in prices for export products, will achieve no results unless they are at least combined with an effective control of production. If world trade were free, and if there were no objections to export premiums, it would theoretically be possible, without interfering with production, to maintain prices at home by taxing the home consumer. But the actual situation is different. All these measures must be based on an effective regulation of production, and one can choose between a natural and an artificial regulation. To begin with I shall deal with the latter.

So far as the products of horticulture or arable farming are concerned, regulation is comparatively simple. It demands the making of a good inventory of all farms and a good organization in order to be able to fix what percentage of its normal production each farm should be allowed to sell off the farm and what percentage of the area under cultivation should be planted with a particular crop. There are several such regulations in Holland. In horticulture, regulations to this effect have been laid down for nearly all products. For sugar-beet and factory potatoes, this has also been done. The same applies to flax, and next year peas and beans will probably be brought into the scheme. Furthermore, regulation of cultivation has been applied this year for the first time to potatoes for consumption.

The allotting of the proportions for cattle is more difficult than in the case of crops, where one can limit the area under cultivation, or, as in the case of sugar-beet, the quantity manufactured (as the whole crop has to be delivered to the factories). As regards nearly all high standard products, Holland is an export country. In every case production is to be adapted to possible export and home consumption. Naturally, one must always start here more or less from estimates, and only after a few years will enough experience have been acquired to make it possible to know how far one can go. For the time being the main thing was to find a system whereby breeding could be restricted, and in the case of pigs and cattle one started from that idea. Every pig must first be a piglet and every cow must first be a calf, and if one takes care that piglets and calves are not born, or in the case of calves, that they will not have more than a few months life, one can be sure that, in the normal course of things, one can keep the stock of pigs and cattle at the desired level. In the case of pigs, the approximate number which could be allowed to exist in Holland, that is the number of piglets to be born, was fixed on the basis of two inventories, one from before the crisis, and the other taken at the beginning of these measures. The type of farm, and the number of pigs being known from the previous inventory, every farmer was allowed a definite number of piglet marks. It is forbidden to have pigs weighing over 10 kilograms without having marks affixed to their ears. At first a tattooed figure was taken. When it was seen that this was imitated the mark was made twice over, a tin mark when the pig was very young and a tattooed mark later on. Every pig carries a number so that, in case of deception, it can be traced. The distribution was carried out by apportioning the number of piglets among the eleven provinces, and in the provinces among the districts. In the districts, district commissions apportioned to each peasant individually a number of marks. When it was later seen that the prices for piglets were rising too sharply, and that there was a danger that all the advantages of this regulation would go to the breeders, and when it was also seen that there was a growing tendency to mark fraudulently, the maximum number of pigs for each farm was fixed in the same way.

For cattle an approximately similar system was applied, whereby the number of calves which could be reared was fixed. These calves were marked and the peasant was provided with an identification card for the calf. On August 1 the farmer may have only one living calf weighing under 170 kilograms, not accompanied by an identification card. This weight remains valid until November 1. From that date on, one may have no more than the number of marked calves. In order to relieve the cattle market 120,000 cows were slaughtered during the winter of 1933–4. Probably this measure will have to be applied again in the coming winter. It is hoped that then rearing and consumption will balance one another, for Holland will try under all circumstances to prevent the cows from becoming a waste product.

Of course no complete results could be obtained with the first apportionment of pigs. In addition to this, the work is carried out under particularly difficult circumstances, because the possibility of exporting pigs on the world market has completely ceased, and in the course of one year the Dutch exports of pigs decreased by more than 10,000 head per week, that is by more than half a million in one year.

The breeding regulation for pigs and cattle is fixed for at least one year. There is thus no question of suddenly changing it. Consequently, in the winter of 1933–4 it was found that there were too many pigs and, at the moment, the prices are thus under the basic price. A number of heavy pigs have been frozen and at the same time a number of marked piglets from every farm have been handed over, so that now supply and demand are gradually made to balance. It is hoped that this autumn and winter satisfactory results will be achieved, as in the autumn of 1933.

For cattle this will obviously require several more years. It is therefore very difficult to know how far one should go in cattle restriction. It is not merely a question of meat, but in the first place a dairy matter, and here the question of the relation to margarine plays an important part. On this point there is a difference of opinion as to whether the restriction of the production of margarine would benefit agriculture to any great extent. Margarine production has been subjected to a quota, and the opinion prevails among the farmers that the quota should be applied still further. A final decision in this matter has not yet been made.

An important export product for Holland is eggs. In order to restrict egg production, rearing in brooders has been subjected to definite rules. No brooders may be used without the permission of the authorities, and the period for rearing chickens is limited.

These measures of course cannot all be carried out from one central organization. A start was made by setting up for each article a national centre, which was decentralized into eleven provincial organizations. On account of the long duration of the crisis and its great extent a reorganization became necessary, whereby only three of the crisis centres were allowed to remain. These are the arable farming centre, the cattle centre, and the horticultural centre, all of which work for the greater part with provincial organizations. These provincial organizations, of which there are eleven administrative districts, the areas of which coincide in general with the boundaries of the provinces, include all agriculture. All peasants are obliged to belong to them. These semi-official bodies, which have legal powers, work under the control of the centres and of the government departments.

The carrying out of the whole scheme is placed under three government commissioners who, together with the General Secretary of the Ministry of Trade as chairman, form the Board of Government Commissioners which advises the Minister and sees to the day to day direction of all measures against the crisis. For the many commercial questions connected with the matter, a commercial adviser is added to the Board as a member enjoying equal rights.

This structure and the compulsory organization involving the application of the legal provisions which deal with offences committed by organized bodies have made necessary extensive control service, and a special jurisdiction.

I can imagine that the whole system will appear to many people to be extraordinarily complicated and almost impossible to put into effect. If anybody in Holland had said four years ago that such a strict organization of the economic life would be brought about in such a short time, I think nobody would have believed him. But this organization has grown naturally, rather than been created artificially. When the first important measure of assistance was introduced, the Wheat Law, by means of which the peasants received a far higher price for their wheat than the one at which duty-free imported wheat could be bought in Holland, it was necessary to concentrate strictly the delivery of this wheat. Thus the idea of this organization was born. The success of the wheat organization made possible other measures, which were also accepted. The Dutch farmer has gradually got used to these organizations. Although he would naturally like to have back the old free state of things, when every one was free to manage his own farm without official interference, the farmer knows that this is no longer possible, and so the measures have been accepted by agriculture. They have not been accepted so willingly by various branches of trade and industry which do not themselves enjoy the immediate benefits of the measures, but bear their burdens all the same.

If one now considers the whole situation it is possible to state that, although there have been great mistakes made and though the goal set has not in all cases been approached, nevertheless the original intention to save the Dutch export trade in agriculture has been achieved, in a country with a gold currency and under extremely difficult circumstances. Although it has of course been easier to help arable farming than stock-breeding, one can say that even for stock-breeding the worst has been prevented and that the energetic carrying out of the regulations will sooner or later bring supply and demand into harmony, so that the situation of cattle and poultry farming, &c., will then be bearable.[2]

Apart from this form of intensive organization, one could visualize a system of greater freedom by which supply could be adjusted to demand by a strict regulation of prices. This system, which is what happens in a free competitive economic system without any sort of regulation, has a great attraction, but it is forgotten that in normal times, with a free world market, price fluctuations can never be such as they so easily become now. For an export country there is the grave danger now that the free development of things will push back production to such a low level as would be impossible under other circumstances. But not only that. With severe fluctuations in prices it is especially the weaker farmer who is continually suffering loss. By pressing down prices one would therefore not only neglect the aim of keeping agriculture, including the production of high standard products, above water in these extremely difficult times, but one would also let those farms come to grief which, though not the least economic, are the least well provided with capital. In such times it would not so much be a question of the 'survival of the fittest' as of the 'survival of the fattest'. Perhaps a large country with a larger market would be better able to follow the free system. A small country, with a market which is elastic to only a small degree, would, without doubt, get into insurmountable difficulties.

Thus, it was only possible for Holland to choose the first of these two systems. The way is a difficult one and, being for many unintelligible, produces a perpetual opposition which imagines it could achieve better results with the second system.

Everything considered, one comes to the conclusion that it is possible for Holland to fight the crisis. And so one goes from one thing to another and comes gradually through these measures to a sort of planning in agriculture. Holland is probably the first example of this, but it has shown itself to be practicable. It is my belief that an exporting country, if it wants to maintain its position in this period of transition, must do something of this nature. So long as a country is agriculturally an importing country it is possible to give assistance by means of measures of protection. As soon as a country becomes, to any considerable extent, an exporting country, things become much more difficult. If one does not want to deliver up agriculture to the harmful effects of the world price level, or to what for the moment counts as the world price level, one must follow this system. If one begins to support prices without regulating production, the final result must be over-production, which even a bad harvest can check only temporarily and, up against a closed world market, one would be faced with great difficulties. For a country exporting grain the situation is easier than for countries which have an export of dairy produce or high standard products, but sooner or later it too will get into difficulties if production is not adjusted in time. In adjusting production, it is necessary to choose between two systems and, in my opinion, if agriculture is not to be exposed to too great danger, the way of regulated restriction of production must be chosen.

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[2] To-day in Holland prices of arable products are at pre-War level. Prices of live-stock products are at 75 per cent. of pre-War level. Horticultural product prices are lower still. Agricultural prices are in general about half those in Switzerland, as I was informed by Professor Laur.

FIGHTING THE CRISIS IN THE PEASANT COUNTRIES OF THE DANUBE BASIN

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THE members of the International Conference of Agricultural Economists are already informed of the agricultural situation in *Bulgaria* by the excellent report of Mr. N. V. Dolinsky, of the problems of the agrarian crisis in *Rumania* by the admirable report of Mr. M. Serban, and of the special economic and social problems of the agrarian crisis in *Yugoslavia* by the author of the present paper. I should like to take for granted the information contained in these reports, in order to confine myself to a summary of those facts which are common to all the countries concerned, and thereby gain special importance for an appraisal of the measures taken to meet the crisis.

We must specially emphasize as a common factor in these three Danube countries the prevalence of small peasant holdings, which distinguishes them from the other countries of the Danube Basin—Hungary, Austria, and Czechoslovakia.[1] These countries also have in common the general impoverishment of the people, i.e. the fall in the purchasing and tax-paying power; the peasants suffer especially under the unfavourable price relationship of agricultural with industrial products, and the resulting depreciation of capital and labour invested in the land. The sale of produce below cost of production brought about, above all, severe debt difficulties for the peasants. It is significant that the governments of all the three countries concerned themselves mainly with the two last-mentioned problems. The most important and drastic regulations were made on the one hand for the purpose of raising the prices of the chief agricultural products, on the other hand for the protection of the indebted peasants against their creditors. It is surprising how much these measures, although called forth by identical causes, differed in their nature, and yet have led—we may say it in anticipation—to the same negative results. We will attempt briefly to describe the character of these measures and the causes of their failure.

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[1] Of the entire area, the land owned by small peasants amounts in:

Bulgaria—in holdings of less than 30 ha—to 99·4 per cent.
Yugoslavia „ „ „ 28 ha—to 75 „ „
Rumania „ „ „ 20 ha—to 61 „ „
Austria „ „ „ 20 ha—to 25 „ „
Hungary „ „ „ 57 ha—to 50 „ „
Czechoslovakia „ „ 20 ha—to 44 „ „

The figures for Yugoslavia are an approximate estimate; the others are taken from the *Annuaire International de Statistique Agricole*, Rome, 1930–1 and 1931–2, and from the report of the present author at the XIIIth International Agricultural Congress in Rome: *La Situation de l'agriculture dans les pays de l'Europe orientale*, Rome, 1927.

I. MEASURES FOR RAISING THE PRICES OF AGRICULTURAL PRODUCTS

The governments of all three states seem to have drawn their conclusions from the following considerations: the estimated revenue from direct taxes (land-tax) cannot be collected so long as the peasant receives for his grain no price at all, or only such a low price as will hardly cover the bare cost of living. It is, therefore, to the advantage of the state finances if by a state subsidy the grain prices are raised to such an extent that the peasant can pay his taxes. Of course, the state subsidy must not exceed the estimated tax returns, as otherwise the transaction would be unfavourable to the exchequer. The manner in which prices were to be raised is different in the three countries.

Rumania went farthest. The state bound itself to pay an export bounty of 100 Lei on every 100 kg. of wheat, and 130 Lei on every 100 kg. of wheat flour. The export of maize got no bounty, but the transport rates to the export harbours and stations were reduced by 30 per cent. On all kinds of grain, oil-fruits, and legumes, the export duties hitherto in force were abolished, together with the sales tax. To raise the means for the payment of the export bounty, a tax of 0·40 Lei per kg. of flour and a stamp-duty of 0·50–1·00 Lei per kg. on all kinds of bread was imposed. On production of documents showing completed export, the Minister of Finance had at once to pay the export bounty. A union of grain exporters was set up by the new law, and was authorized to export under these favourable conditions. The union included the farm producers' associations.[2] The export of live cattle and meat was regulated by export syndicates with a central office in Bucharest, which distributed the quotas available for export among the syndicates.

By the law of December 25, 1930,[3] Bulgaria set up a corporation for the purchase and export of grain, to buy grain at a price higher than the foreign price, in order to raise the home price. Fifty per cent.

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[2] Law for the valorization of agricultural products of Mar. 31, 1931. *Annuaire International de Législation Agricole, XXI^e Année*, Rome, 1932, p. 99.

[3] Law for the purchase and export of grain. *Annuaire International de Législation Agricole, XX^e Année*, Rome, 1931, p. 22.

of the increased price for wheat, and 25 per cent. for other grain, was paid in cash, the remainder in state bonds, with which the holder might pay his taxes. In addition to this an export bounty of 0·50 Leva was later granted for maize. The sole right to buy grain on these favourable terms was in general in the hands of the corporation mentioned above.

In Yugoslavia the law of June 27, 1931,[4] declared trading in wheat and rye to be a state monopoly, which was handed over to a newly-formed and privileged export company. This company was to buy wheat—no buying was ever done in rye—at a price of 160 Din. per 100 kg. to begin with, afterwards at increasing prices up to 100 per cent. above world parity, and then to dispose of it to the best advantage abroad or at home. The expenses were to be covered by rebate of duties on exports to Austria and Czechoslovakia, and by a flour-tax levied later. Any deficit was to be made good by the state, which guaranteed the business transactions of the export company.

As we said above, all the three policies have failed, involving great losses to the state finances. They had to be abandoned in the three countries, as the means at the state's disposal and the unexpectedly small returns from the action itself made it simply impossible to maintain the method of raising prices directly. Moreover, the organization failed in its main object (the increase of the agricultural producer's income) in all three countries, for the raised prices were of very little advantage to him—the profits went to the selling agencies and to the corn merchants associated with them. The insufficiency of the state's means for purchasing, the subsequent abandonment of the whole scheme, and the inevitable damage suffered by many interested parties, have left inglorious memories in all the south-eastern Danubian countries.

If we want to obtain a clear idea as to the causes which led to the failure of the well-meant government measures, we must, above all, take into account the defects of every state undertaking which is drafted on a large scale, but not sufficiently thought out; the restricted freedom of action of the responsible managers; the bringing together of an *ad hoc* organization with more or less unknown members; and their unskilled and inexperienced handling of details.

To this we must add that the years 1931 and 1932 brought very rich harvests in the Danube basin so that the surplus was unusually large, and the state subsidy was consequently drawn upon far more heavily than could have been expected normally. The agrarian countries of south-eastern Europe, having little capital of their own, are altogether unable to raise the prices of agricultural products by way of subsidies at home; they must obtain the means for this purpose by way of preferential export agreements with other countries. The important matter is not so much the extent of the preference, but rather the certainty of being able in some way or another to get the price-depressing surpluses out of the country. For as soon as these surpluses are eliminated, the prices of the remaining stocks rise to the world-market level, plus import duty, which can of course be regulated at will in the export countries without injury to third parties, so that the desired price-level can be reached without state assistance. The kernel of the question is therefore the conclusion of bilateral, preferential, and reciprocal trade agreements between the south-eastern countries of Europe and those western countries which could take their agrarian surplus. If this condition is realized, the central export organizations will be quite able to fulfil their task, and no special state subsidies will be needed to bring the price of agricultural products up to the level which is so vitally necessary for the prosperity of the farmers.

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[4] Law referring to the export and import of grain. *Annuaire International de Législation Agricole, XXIe Année*, Rome, 1932, p. 132.

2. MEASURES TO PROTECT INDEBTED SMALL FARMERS AGAINST THEIR CREDITORS

This scheme is concerned not so much with the great problem of freeing the peasant from debt, but rather with his temporary protection against his creditors during the period of the crisis. In countries without much capital, loans can be secured only at considerable sacrifices on the part of the borrower—sacrifices which, in the form of interest and security, often go far beyond the economic advantages of the loan and jeopardize the very existence of the debtor. In order to make bearable the otherwise intolerable burdens, agricultural credit institutions were established in all three south-eastern countries; their activities are beneficial but, owing to lack of means, limited. The general fall in prices—not only of products, but also of the value of the farms, land, buildings, and improvements, live and other stock—created a situation which made it impossible for nearly all debtors to meet their obligations. The creditors had a free hand to enforce their legal claims rigorously; and this they did in so many cases that the governments found themselves compelled to take special measures for the protection of the threatened peasantry.

By a remarkable coincidence, the laws for the protection of debtors were promulgated in all three countries of the Lower Danube almost on the same day.[5] The most radical measures were taken in Rumania, where the transition from a primitive economic life to one based on a market and credit economy had in itself created a previously non-existent demand for credit. This demand was further increased by the need for capital arising out of the agrarian reform, so that the indebtedness of the peasants and their dependence on their creditors had assumed very grave forms. In Bulgaria and Yugoslavia things were hardly any better, but the legislative measures were not so drastic as in Rumania. In all three countries there was undeniably a pronounced anti-capitalist tendency, which brought the agricultural credit institutions into an untenable situation. But even the 'protected' peasants felt in the beginning only the unfavourable effects of the new laws, for their credit-worthiness was at one stroke wiped out: no grocer, no tradesman, no factory, and no bank would give goods on credit, or money on loan to a debtor who could really no longer be legally forced to pay his debts. The credit stringency of the peasants became so acute that in some places riotous demonstrations took place in front of public offices. On the other hand, the small village grocers, who no longer gave salt, flour, petroleum, &c., on credit, were so much pressed that they shut up their shops and moved into the towns. This unexpected result induced all three governments to make changes in the original legislation,[6] by which the rights of the creditors were better protected and the provisions of the law limited to the obligations already in existence, while, with regard to new credits, they left the existing laws against defaulting debtors unchanged. Even after these alterations and supplements, the problem of peasant indebtedness in the south-eastern Danubian countries cannot be regarded as happily solved.

The fact has generally been overlooked that the farmer's credit serves different purposes, and that the manner in which it is used determines the possibility and form of its repayment. Credit which is used as circulating capital, and which reproduces itself in a single period of production, must not be treated like credit used for the acquisition of land. While the working capital in the course of its employment is subject to only slight fluctuations of value, the value of land has in the last three years diminished by more than 50 per cent.

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[5] Bulgaria: Law for the protection of the agricultural holder of Apr. 16, 1932. Rumania: Law for the regulation of agricultural debts of Apr. 14, 1932. Yugoslavia: Law for the protection of farmers of Apr. 19, 1932.

[6] In Rumania the court of appeal declared the law to be unconstitutional, so that it had to be altered in any case.

The repayment of debts incurred in connexion with production and consumption is not particularly difficult in the case of farmers who have adapted themselves to modern market and credit conditions. On the other hand, it is in the great majority of cases quite impossible for the farmer to make his farm yield the difference between the former market value and the present 'earning' value of his land. These differences of value and price which were dependent on, and caused by, the general conditions, and not by wrong farming methods of the individual farmer, should be taken over by the state as a burden to be borne by the community—no matter whether by conversion or by the issue of bonds which may be used as legal tender, or in some other way. In any case, it is only that form of agricultural credit, viz. the mortgage in general, which is in need of state protection in all three Danubian Balkan States; any further method of influencing the credit facilities of the farmer may do more harm than good. That does not mean that rates of interest, compulsory sales of peasant property, &c., should not be specially regulated in the interest of the farmers. On the contrary, these questions, as well as that of the 'green usury', i.e. undue profits on buying and selling, intermediate trade, &c., have to become matters of state concern and protection. But the state interference has to give full consideration to the close connexion between the interests of all classes of the people; otherwise the preference given to some, while of only slight advantage to them, is certainly always an injury to the whole nation. In the supplements and alterations of the original laws, this standpoint is taken more and more into account; and yet the desired result has not been realized in so far as, by the protection of the peasant debtors, their economic position was only partially improved, while the national economy as a whole, especially the credit system, suffered heavy damage. At the moment, however, this does not worry the people very much. In these countries the agrarian reform, and the encroachments on private property connected with it, struck a heavy blow at the people's sense of justice as regards the integrity of property and the sanctity of contracts. The demagogic successes of parliamentarian democracy have greatly strengthened this feeling by now taking up, after their successful campaign against private land property, the fight against private capital. That was not difficult. The cases of usury against the peasantry, often really appalling, made it easy for the demagogues amongst their leaders to present as the aim of their fight the complete cancellation of all peasant debts. In Yugoslavia many peasants believe that they will never have to pay their debts at all, and it seems to be much the same in Rumania and Bulgaria. With such a state of mind among large sections of the people, it is not easy in a peasant country for a responsible parliamentary government to find a way which makes it possible, uninfluenced by demagogues, to balance the interests of all classes.

The latest alterations of the original laws represent attempts to realize the expectations of the peasantry, as far as possible, without, however, injuring the interests of the creditors to the extent originally planned. The greatest difficulty in these attempts is the inadequacy of the state resources in all three countries: their budgets had to be reduced by 10–15 per cent. compared with the previous year, and it is absolutely impossible, out of the ordinary revenues of the state, to cover the extraordinary expenses involved in the cancellation of peasant debts. Nor can the necessary means be raised through internal or external loans; for in the home countries no available means exist and in foreign countries no credits are obtainable for such unproductive purposes. One way is still open; if the governments would issue stocks (debentures, mortgage bonds, notes, &c., enjoying in internal circulation full parity with the gold-covered notes) secured by mortgages on the land liberated from debt, and if further they would guarantee the conversion or redemption of these stocks by annual budget provisions, the debt cancellation could to a large extent be effected. By the issue of the new stocks, the creditors of the peasants—merchants, tradesmen, banks, &c.—would be in a position to meet their obligations to their creditors and depositors, 'frozen' capital would come to life again, and the entire economic life would be revived by this injection of new blood. Unquestionably, every expenditure of the state to this effect would release far greater possibilities than the actual sum of money would amount to. It is questionable whether such a measure could be regarded as inflation and as a damage to the credit of the country concerned, abroad or at home. If we disregard the various scientific—and so much disputed—definitions of inflation, and if we judge the problem only by the too abundant practical experiences of our post-war days, we may assume that a cancellation of debt, carried through in the manner described, could not be called inflation; for though this would mean additional money in circulation without gold cover, the amount of this money would from the outset be limited; it would be fully secured by mortgage, and its repayment would have a budgetary guarantee. Such a solution could be brought into harmony with the principles of the quantity theory of money, and only rigid supporters of the gold standard could raise objections to it. But the knowledge that the measures hitherto taken do not satisfy the peasantry, and that a recovery of the economic life in general cannot be expected from present methods, will probably sooner or later compel the governments of the Danubian Balkan states to adopt these or similar measures. For the present, we have to note the fact that the measures of the governments in the peasant states of south-eastern Europe, with regard to the two most burning problems, the raising of the prices of their agricultural products and the protection of the indebted peasants, have led to no decisive success. The reasons for the failure are, on the one hand, the inadequacy of state resources, and on the other, the state of mind prevailing among the people. The question naturally suggests itself: how can these countries, in spite of this, improve the condition of the farmers, and thereby overcome the general crisis in its most important aspects?

The way would be, as we said above, to increase the money in circulation; but we must not hide from ourselves the fact that, while this would considerably improve the situation, it would not lay the foundation for permanent prosperity. This can only be achieved by a well-directed effort extending over many years, and for this the natural resources of the Balkan countries amply provide the necessary basis. The aim should be the organization of production in the Danubian peasant countries for exchange of goods with the import countries of western Europe; or where that is impossible, the export of surpluses unmarketable in the west, to the Near East Mediterranean countries. The former course is historically justified and economically requisite, the latter would be a last resort, if the former fails. Both demand measures which must involve considerable changes in the economic structure and farming organization of the peasantry, if the object is to be attained.

Above all, the present widespread two-field system, with its prevailing wheat and maize crops, must be modified so far as to make room for products more easily marketable and more profitable than the above-mentioned grain crops. It must, however, not be forgotten, that between wheat and maize there is an ecological connexion in the sense that poor wheat harvests are regularly supplemented by rich maize harvests, and vice versa, and that accordingly the self-supporting farms of the peasant countries are obliged, in order to provide under all circumstances grain for bread-making—which includes maize—to grow both kinds of corn. Certainly this need not be done so extensively as it happens now.[7] The land thus released

[7] The ecological relation between wheat and maize culture is specially clear in Yugoslavia, where, e.g., in 1928 there was a record wheat harvest of 28 mill. dz., whereas the maize harvest was particularly bad with 18 mill. dz. In 1932 the position was reversed:

might well be devoted to the cultivation of industrial plants (e.g. oil-seeds: rape-seed, soy-beans, sun-flowers, poppies, &c.; textile plants: hemp, flax; medicinal plants) according to the demands of the market for which they are intended, that is to say, it must be done within the framework of a plan fixed from the beginning for the mutual exchange of goods. The change from corn-growing to the rotation of crops might take place only in conjunction with fodder growing (lupins) which, in its turn, involves a transformation of the primitive breeds of cattle, which are bad fodder consumers, into better fodder consumers, by crossing and selection. The successes hitherto achieved in this respect in northern Yugoslavia and Rumania with Pinzgauers, Zimmenthalers, and, in the mountainous districts, with Alpine Gray-cattle, encourage further steps in the same direction. Simultaneously the transition must be effected from extensive pasture-farming to regulated stall-feeding, which means a revolution in the domestic economy of those districts where hitherto the cattle were kept in summer on open pastures and green fallow, in winter in most primitive shelters with the scantiest straw and hay fodder. The transition from primitive domestic cattle to more productive and finer breeds does not increase the number of the cattle, the supply does not become greater, but the value of each animal increases and their marketability rises, especially abroad. That again involves a planned adaptation to the requirements of the economic area to which the export is to be directed. Both for plant and animal production it is necessary for the Danubian peasant countries to make systematic changes in production in order to secure adequate markets for their products. But in addition to this there will have to be an improvement in the quality of the products. Thus, during the last three years, detailed regulations in this direction have been issued in all three countries in order to ensure a classification and standardization of export products. In their relation to the producer, such measures involve a far-reaching influence to be exercised by the government on the development of the various branches of farming, which are to be grouped in districts and assisted according to their maximum possibilities of profit. Everything connected with these developments, such as the distribution of seed-corn and breeding cattle, instruction and schooling, prizes and stimulation of interest, organization of co-operative societies—in short, all measures which serve

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the wheat harvest yielded only 14·5 mill. dz. but maize 47 mill. dz. In Rumania the ecological connexion is clearer in the relation between barley and maize: 1930: barley 22·1 mill. dz., maize 45·2 mill. dz.; 1931: barley 12·9 mill. dz., maize 60·6 mill. dz. In Bulgaria the same relation exists as in Yugoslavia between wheat and maize: 1930: wheat 8·9 mill. dz., maize 9·4 mill. dz.; 1931: wheat 15·5 mill. dz., maize 7·7 mill. dz.

the promotion of agriculture, must be incorporated in the framework of the general plan.

The execution of the planned measures must, of course, be left to the administrations of the separate countries; but the planning itself needs the common co-operation of all three south-eastern countries, which from the outset must settle the framework of their plan in mutual agreement, if they do not want to run the risk of making their mutual competition in the market still keener by the new planning of their production. Co-operation is greatly facilitated by the present peaceful political situation in the Balkans; indeed, the political situation may be considerably strengthened by such economic agreements. But the countries to which the export of new products resulting from the changes in production is to be directed must also take part in the planning of the peasant countries. So far as the markets in the western countries, Germany, Italy, Austria, Czechoslovakia, and Switzerland, are to be retained, it will first be necessary for these countries to bring their protectionist agrarian policy within such limits as will make the eastern states desirous to maintain their existing connexions. But lately that has been the case only to a very slight extent. Only the attempt for a trade agreement between Germany and Rumania, which indeed could not be realized, and the agreement concluded between Germany and Yugoslavia on May 1, 1934, open prospects of a further development in the desired direction. It must, however, be clearly understood that preferences such as those provided by the German-Yugoslavian agreement, fluctuating round 13 per cent., are insufficient to effect that rise of prices which is the aim of the agreement. With such small preferences, the purchasing power of the Yugoslavian farmers will hardly be increased at all, because the long way back to the producer will deprive him of all beneficial effects the preferential treatment of his products may have otherwise. Nor is the industry of Germany much assisted by them, and Yugoslavian agriculture will hardly be induced to adopt a systematic reorganization giving special consideration to Germany's needs. The same is naturally true of Rumania and Bulgaria; and not only in their relations to Germany, but to all other non-self-supporting countries of western Europe. It must not be forgotten that those countries which have no colonies are increasingly dependent on the markets of the semi-developed European countries; that in these countries a hard struggle for the market has just begun among the European nations depending on it as well as between them and their Japanese competitor; and that in this struggle that country will win which is able to offer the greatest advantages to the agrarian states. The situation of the latter seems to be approaching a complete transformation; while they were hitherto obliged to seek markets for their products, they will in future be courted by the industrial states to become efficient buyers of their industrial products. The new conditions will, however, be of benefit to the Danubian peasant countries only if they understand how to adapt their production systematically to the new market possibilities. The question whether this should be done by way of bilateral agreements or by arrangements made by blocks of agrarian and industrial groups among themselves, will probably be answered in favour of the former method. Nevertheless, it will be advisable that the peasant countries should apportion between themselves the future market requirements, as all three have exactly the same conditions of production, and therefore a surplus of the new products might easily result. In any case, it is certain that the crisis in the Danubian peasant countries can be overcome, not by palliative measures, but only by a fundamental and systematic re-orientation of their production within the framework of effective trade relations with the non-self-supporting countries of Europe. Should such a connexion not be possible, these countries will be gradually forced to loosen their ties with the west, and turn to the Near East in so far as the latter offers a market for their products. From the standpoint of Europe, from the standpoint of the west as a whole, that would be the most unfavourable solution of the problem—the peasant countries would be happy if it could be avoided.

ECONOMIC CONDITIONS OF PEASANTS IN BRITISH INDIA

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PHYSICAL FACTORS, AREA, AND POPULATION

THE fundamental influence of physical factors on the economic life of every country need not be laboured—they are the prime determinants of a country's products, the occupations, density, and distribution of the people.

India, including the Indian States, is 1,802,657 square miles (1,093,074 plus 709,583) in area, with a population of nearly 350 million people. The length of the country from north to south is about 2,000 miles, and from east to west about 2,500 miles. India is thus a country of huge dimensions, being fifteen times as large as Great Britain, and equal to the whole of Europe excepting Russia.

In India extreme physical diversities of various areas can be clearly noticed. We can find every type of climate, from the permanently snow-clad mountain peaks of the Himalayas, the glorious Alpine regions of Kashmir, to the rainless desert of Sind, the extremes of heat and cold in the Punjab, and the perpetual hot-house of Malabar.

Briefly speaking, the physical features of India fall into three well-marked divisions, namely:

1. The Himalayan and north-west mountainous regions.
2. The great fertile plains of northern India, watered by the Indus, the Ganges, the Brahmaputra, and their tributaries, which have been the seat of the great Hindu and Mohammedan kingdoms and empires in the past.
3. The southern or peninsular region, which may itself be subdivided into the Deccan plateau (average elevation 1,500 to 2,500 feet above sea-level) and its coastal fringes.

It follows from this that India possesses a great variety of animal, vegetable, and mineral products, ranging from the heavily coated Kashmir hill sheep to the camel of Sind, the elephant of Bengal and Assam; from the wheat, fruit, fir-trees, and Alpine vegetation of the north to the rice, coco-nuts, and palm-trees of the hot, low-lying swamps and coastal regions; from the coal, iron, and mica fields of Bengal and Bihar to the gold of Mysore; and from the salt ranges of the Punjab to the oil and other mineral fields of Burma and Assam.

INTRODUCTION AND HISTORICAL RETROSPECT

The most striking characteristic, however, of the economic life in modern India is the overwhelming preponderance of agriculture over all other occupations; the great mass of human life and effort, represented by four out of every five persons in the country, being devoted to agricultural and/or pastoral pursuits. I shall strive to present in the next few minutes the most important agricultural facts and statistics in a very condensed form. It is difficult even to do so without committing sins of omission and commission, and I trust that you will pardon me for them.

Agricultural occupation, it is true to say, has from time immemorial been predominant in the life of the nation. Indeed, in the remote past, democracy in India rested on the land. Almost everywhere in that vast sub-continent people have lived in small villages, the houses of which are huddled together in a more or less compact area situated in the midst of the fields, which provide the means of livelihood to their occupants. The farms and their farmsteads which are so striking a feature of the rural life of most western countries are practically absent.

In ancient India large towns were few, great cities were fewer still, but there were as many as 500,000 villages. The urban population was comparatively very small, and even to-day constitutes only a little over 11 per cent. of the whole. Thus the demand for agricultural produce for final consumption in the towns was small in comparison with the whole volume of production.

With little or no urban or industrial population, and little or no means of export, agricultural production was perforce confined to local demand. No organization of trade and commerce could grow up without the production of a surplus over local demand, and no individual would indeed continue to produce such a surplus in the absence of a market which, in India of the period under review, did not exist. Circumstances, therefore, have combined to maintain what is, in large measure, a self-sufficing type of agriculture. Little surprise need therefore be expressed at the very limited progress which the art of husbandry made during the period.

Throughout the history of India, famines have been frequent and often widespread. When favourable seasons yielded a surplus, this used to be stored, because the surplus could not be sold and storage was the obvious means of disposing of it. Generally speaking, storage in excess of a season's requirements was regarded as unnecessary, the contingency of famine being too remote to determine mass conduct.

Another notable characteristic was the marked insecurity of life, due mainly to the uncertainty of the water-supply and the prevalence of certain endemic and epidemic diseases.

Such were, in short, the conditions which confronted the Indian peasantry up to the early years of the nineteenth century. During this period man's insignificance, impotence, and ignorance in the face of cosmic phenomena such as floods, cyclones, earthquakes, &c., were, perhaps, responsible for the characteristic 'fatalistic' attitude of Indians in general and of the Indian peasantry in particular.

THE PRESENT POSITION

Since the last decade or two of the nineteenth century there has been a steady increase in the percentage of the population engaged in agriculture. Thus the proportion of people engaged rose from 61 per cent. in 1891 to 71 per cent. of the actual workers of India in 1931—the percentages for 1901, 1911, and 1921 being 66, 71, and 73 respectively.

Agriculture, being the basic industry, is of vital importance in the life of all nations, but it is more particularly so in the case of India, where it directly or indirectly supports, as already pointed out, such a bulk of the population, and as such should be entitled to the greatest consideration.

Among the causes, however, for this increasing pressure of population on land, the stability of the governmental institutions and the consequent security of life and property, absence of famines, wiping out of the old rural industries and handicrafts, irrigation, abolition of certain 'positive' checks, and the 'natural' increase of population stand out as prominent.

Two other important causes, both external to India, have exercised a profound influence upon her agricultural economy. The Suez Canal was opened in 1869; steamship services with cheap freights and comparatively rapid transport followed soon after. What these have meant to Indian agriculture is clear when we say that when the Suez Canal was opened, exports were valued at rupees 80 crores. For the three years ending 1926–7 the average value of annual exports of mainly agricultural products exceeded rupees 350 crores (rupees 1 crore is equivalent to £750,000 approximately).

The present agricultural position may therefore be summed up as follows:

The large development of the export trade, on which we have commented, has obviously been secured after providing for the steadily increasing population. That production has increased and leaves an exportable surplus is beyond question. Some part of this increase is due to enhancement of yield resulting from expansion of irrigation, but a far larger part is due to spread of cultivation. Cultivation and management are, however, mainly carried on according to traditional and stereotyped methods, with little or no manures and improvements.

Internal peace and order have been unbroken for several generations, railway communications are now quite satisfactory, roads have been improved and extended—these have provided stability to rural society. But India is still the land of the small-holder. Large-scale farming, even in the altered conditions of to-day, though open to many, is practised by few. The typical peasant is still the man who possesses a pair of bullocks and who cultivates a few acres with the assistance of his family and of occasional hired labour. In spite of the progress that has undoubtedly been made, the ordinary farmer on his tiny plot is still a man of small resources, with small means for meeting his small needs. He therefore requires all the help which science can afford, and which organization, education, and training can bring within his reach.

SCOPE FOR IMPROVEMENT

It will not serve any useful purpose to enter into a discussion of either the comparative prosperity of agricultural industry to-day and in the pre-British period, or to compare the efficiency of the Indian peasant with that of his brethren in other parts of the world. No one, however, doubts that there is a vast scope for the improvement of Indian agriculture as found to-day, both in extensive and intensive directions.

Statistics show that only 60 per cent. of the total cultivable area is now under cultivation, and it would thus be possible by a progressive agricultural policy, such as utility projects like the Sukkur Barrage in Sind and the Mettur Dam in Madras, to secure appreciable extension of cultivation in India.

Similarly, as regards the intensity of cultivation, the produce of the Indian fields compares very unfavourably with those of other countries. Taking one or two of the principal crops, we are told[1] that whereas the yield per acre of rice in Japan is 3,232 lb., in Egypt 2,610 lb., in U.S.A. 1,775 lb., in India it is only 1,336 lb. Similarly, while an acre yields 32 bushels (1,861 lb.) of wheat in the United Kingdom, 20 bushels (1,318 lb.) in Japan and Canada, the yield in India is only 12 bushels (618 lb.). For cotton the comparative yields are: U.S.A. 151 lb. per acre, Egypt 294 lb. per acre, and India 89 lb. per acre.

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[1] From the *International Year-books of Agricultural Statistics*, 1909–21.

There is also no room for doubt that with the application of proper manure and an improvement in seeds and the methods of tillage, it is possible to increase greatly the productive capacity of our soil, thus adding to the material well-being of the peasants. As the result of experiments carried out in various parts of India it can be safely asserted that the productive capacity of our fields can easily be doubled.

FACTORS OF AGRICULTURAL PROGRESS

We may follow the classical analysis of elements necessary for the production of agricultural wealth into land, labour, capital, and organization. From the practical point of view, however, we may classify these factors under two heads, namely:

1. The physical factors.
2. The 'human' material or factor.

PHYSICAL FACTORS

Under physical factors, it may be said that the natural fertility of the Indian soil is good. For this reason it has been possible to raise crops from the same field year after year for centuries without rest and with comparatively little help from man. But with the growth of population and decay of indigenous industries a steadily increasing burden has been thrown on the soil.

This continuous and increasing pressure of population on land is manifestly a 'reverse process' when compared with most of the western countries. In Europe and the U.S.A. agriculture lost—and lost very heavily in some cases—to industries. Thus the 'rural exodus' that depopulated the English countryside in the nineteenth century is more or less in constant operation in practically all countries of the West. This phenomenon has become a grave menace to social well-being, and is seriously engaging the attention of all rural sociologists.

Probably it is true to say that the problems of agriculture in the West and in India are not identical, but one cannot ignore the fundamental economic fact that progress in agriculture, as in any other branch of industry, depends not on the increase in mere numbers but in an increase in output per head.

As long as the increase in population is followed by corresponding improvements in the arts of production and utilization of material resources without any diminution in the customary standard of living or comfort, it may be socially desirable. Unfortunately this is not so in India. Moreover, this excessive concentration of population upon the soil has resulted in subdivision and poverty, with their concomitants, indebtedness and under-employment.

There are the problems, again, arising out of a whole series of interconnected social institutions, such as the Hindu Joint Family. The influence of laws and customs governing inheritance amongst the Hindu and Mohammedan communities favours the partition of immovable property among a number of heirs. These are undoubtedly lamentably militating against the spread of large-scale farming in India.

The extent, nature, and the continuous increase in the subdivision and fragmentation of holdings will be seen from the following table:[2]

Average size of holding in	1900–1 . . .	14·02 acres.
„ „ „	1917–18. . .	7·73 „
„ „ „	1926–7 . . .	7·30 „

This subdivision and fragmentation involve a colossal loss of energy and time, and as the plots are 'unenclosed', the liability to disputes regarding boundaries, rights of way, &c., can easily be imagined.

Various attempts have been made to cope with the problems arising from subdivision and fragmentation of holdings. Fortunately, it appears that interference with subdivision by restrictions through legislation has been practicable and successful. With the growth of education and agricultural co-operation and commercialized agriculture, these social and religious customs and traditions are changing. But the progress is slow, and it should of necessity be so, since the work of reconstruction must not outpace the capacity of the people to adapt themselves to new ways of working and living.

IRRIGATION AND DRAINAGE

Irrigation plays a very important part in the agricultural development of India, and offers great future possibilities. In areas where rainfall is insufficient, no cultivation is possible until schemes of irrigation carry the essential water to the land. The Sukkur Barrage in Sind is expected to bring about 5,000,000 acres of land under cultivation, and will thus add materially to the wealth of the country.

The Mettur Dam recently opened in Madras will also prevent the ravages of drought and will bring approximately 300,000 acres under cultivation.

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[2] From *Life and Labour in a South Gujarat Village*, by Mukhtyar.

THE 'HUMAN' MATERIAL

Efficient agriculture depends on the qualities of the man behind the plough more than on anything else. As things stand at present, the Indian peasant must be acknowledged to be inferior in point of literacy to the average European and American peasant. Moreover, he is steeped up to the lips in superstitions and prejudices.

His inefficiency and ignorance, however, are not innate, and are, therefore, capable of being remedied. He is generally improvident and reckless and is too prone to needless litigation. He spends far beyond his means on marriages and other ceremonies, and walks into the money-lender's parlour, from which he is rarely able to get out. A poet aptly describes the life of the Indian peasant:

He eats and hath indigestion,
He toils and he may not stop,
His life is a long-drawn question,
Between a crop and crop.

The Indian peasant with his 'fatalistic' attitude is generally inclined to blame Fate or Providence rather than himself for an evil from which he may be suffering. These are real and pathetic evils, and in their totality are a serious drag on his economic progress, and direct frontal attack must be made on them.

One can, therefore, easily see that the Indian peasant is handicapped with many a burden, and the wonder is that he still continues to carry on the struggle for existence and is not altogether extinct. It is thus a matter of paramount importance to recognize clearly the actual defects and shortcomings of the cultivator, and seek remedies for them, directly through education in the widest sense of the term, as well as indirectly through an improvement of environment and external conditions.

It is obvious that so long as ignorance and illiteracy prevail in our villages all talk about rural progress is futile. The problem of rural uplift cannot be effectively solved until the peasant desires his own improvement and can think and act for himself. A comprehensive scheme of rural education, based on a sound general education, supplemented where necessary with a 'vocational' training, is therefore urgently necessary.

Agriculture is a changing industry. A high degree of adaptability is necessary to keep pace with the 'dynamic' conditions—this is possible through general intelligence fostered by a system of elementary education. 'Vocational' or technical education is very necessary. 'Vocational' education, with its special occupational knowledge, can only be superimposed when a good general education has been received or when an occupation has been chosen. Agricultural colleges in India should form the apex of the whole scheme of agricultural and vocational education. The system of elementary education should be supplemented by demonstration and propaganda. Ocular demonstration is the best method of convincing the peasant classes, amongst whom illiteracy is widespread, of the advantages of an agricultural improvement. Propaganda through wireless broadcasting, lectures with the help of slides, the cinema, leaflets, bulletins (these latter two will be of limited application), will be very valuable. Local societies on a partly-voluntary, partly-official basis, with a government subsidy, may be organized.

PUBLIC HEALTH AND AGRICULTURAL DEVELOPMENT

Many of our villages are ravaged by diseases like malaria, tuberculosis, &c. This is one of the main causes of inefficiency of the peasant. How serious is the position can be understood from the following:

Average expectation of life in India	. . .	23·5 years.
” ” ” U.K.	. . .	40·0 ”

Since the first fifteen years of life are on the debit side, the ordinary 'creative' period stands a little more than eight years! A campaign of public health (health publicity bureaus, baby weeks, child and maternity welfare centres) and personal hygiene must be set on foot on a large scale to wipe out diseases and to create an active and enlightened 'public health conscience'.

UTILIZATION OF 'HUMAN' WASTE

Further, there is an appalling amount of waste of human labour on account of the seasonal character of agricultural occupations. Except in irrigated tracts, where it is possible for the cultivators to sow and reap something throughout the year, the average farmer does not get employment on his farm for about six months. In the absence of any subsidiary rural industry, six months are passed in enforced idleness. Apart from dairy farming and cattle-breeding, the following rural industries, such as mat-making, cane-work, pottery, &c., may be taken up by the peasant. In ancient India these supplemented the agricultural occupations, but have since been wiped out as a result of the onslaught of large-scale manufactured products. This probably explains the fact that India demands tariffs and protection to rehabilitate and protect these industries. The spinning wheel also, under the present condition of the mass of the peasantry, affords the simplest and quickest means of utilizing existing idle man-power.

THE FUNCTIONS OF LANDLORDS IN RURAL ECONOMY

One of the greatest difficulties under which the Indian peasantry works is the lack of enterprise, capital, and leadership. India has had no counterpart of Bakewell and 'Turnip Townshend'—English landed proprietors who contributed so much to British agriculture. It was expected that the landlords would act as powerful instruments not only of material but of intellectual and cultural leadership in rural areas. This expectation, however, has unfortunately not been fulfilled—absentee landlordism being the rule.

Villages naturally do not possess the amenities of urban life, and that is one of the strongest reasons why the landlords do not live in the villages. This is a problem not only in India, but also in the West (except, perhaps, in the U.S.A.). How to solve this is not easy to formulate, and it is engaging the attention of all rural economists.

TECHNIQUE, EQUIPMENT, AND POWER

In many parts of the country there is sufficient scope for improvements in respect of preparation of the soil, sowing, harrowing, weeding, careful selection of seed, a better system of rotation of crops, and adequate manuring. The Indian peasant still largely uses his old and simple implements, which are cheap and easy to make and to repair, and within the capacity of draft oxen. Greater productivity obviously depends on the use of improved implements, which, in turn, will involve a capital expenditure. The pertinent question in this connexion is whether such an expenditure is within the reach of the Indian peasant.

It is easy to realize the importance of cattle-power in connexion with agricultural industry in India, where, besides human labour, bullocks are probably the only form of power used for drawing the plough and carrying produce to the market. Mechanical contrivances, though making slow penetration into villages, are negligible. We must also improve and expand the sources of good-quality milk supply. Yet, important as live stock are to agriculture and to the health of the peasantry and general community, the question of preservation and improvement of cattle seems to receive very little attention. A cattle-breeding industry should be fostered and encouraged. Veterinary service is also necessary for the health and improvement of the cattle-power.

RURAL INDEBTEDNESS AND THE CO-OPERATIVE MOVEMENT

In India, as in nearly every predominantly agricultural country, the problem of indebtedness is and has long been a vital one. In fact, indebtedness in India has been not so much the result of poverty as a cause of poverty. The poorest in the villages cannot and do not borrow. This problem of indebtedness has assumed exceptional importance because it has been accompanied by disastrous effects. The Indian peasant has paid exorbitant rates and has stood little chance of ever again extricating himself from debt. Thus, in India, indebtedness has tended to become a permanent condition. This contrasts with what has occurred in other countries, where, although indebtedness has been equal—if not greater—per head, it has been a temporary stage in the career of an individual debtor who ultimately clears himself of debt.

It was as a remedy for these problems that eventually the co-operative movement began. Further, it was also clearly understood that to make a beginning in the direction of 'better farming, better business, better life' in India, we must look to the co-operative movement. Thus the progress of the movement is indicated by the fact that in 1933–4 there were in India some 106,000 co-operative societies (as compared with 96,000 in 1927–8), with over four million (4,300,000) members, and with a total working capital of nearly 92 crores of rupees. This progress is all the more remarkable because it has been achieved in the face of the general economic depression and the fall in agricultural prices.

However, the main results achieved may be said to be the provision of a large amount of capital at a reasonable rate of interest, and the organization of a system of rural credit which, carefully fostered, may relieve the cultivator from the burden of usury.

The various types of co-operative societies which have grown up since the Act of 1912 may be classified as follows:

1. Primary credit societies, which are, in point of fact, the chief corner-stone of the whole movement, based sometimes on unlimited and sometimes on limited liability.
2. Primary non-credit societies (agricultural, industrial, consumers', educational, and health).
3. Central Organizations, for both general and credit purposes. The co-operative movement has further advantages in its educative value.

Within recent years it has become apparent that the village credit societies are not suitable agencies for the grant of long-term loans, and that this class of business should not be mixed up with the short-term credits which it is the function of the village society to provide. To remedy this defect Land Mortgage Banks have already been set up in certain provinces.

MARKETING AND MARKETING ORGANIZATION

Commercial agriculture demands an efficient system of marketing, grading, and standardization. It has been brought home to all that an efficient production is only one blade of the scissors, and is thus powerless without its other blade, namely, an efficient system of marketing. In this direction the developments in the U.S.A. and Great Britain have been carefully studied and are being adopted in India.

Further, an essential complement to any programme for marketing is the regulation of production in adjustment to the potential demand. It is a happy sign, therefore, that attention has already been given in this direction, and the recent Crop Planning Conference in India has discussed the possible lines of advance in this connexion.

THE STATE IN RELATION TO AGRICULTURE

The aim of every government should be to preach to the nation the importance of a stable agriculture in a national polity. In India the necessity of the state concerning itself with the amelioration of the peasant's position and the improvement of the agricultural system has been recognized for a long time. The idea of improving agriculture by means of special government departments was first conceived as early as 1866. Developments in this connexion followed, but unfortunately the departments were saddled with work not properly belonging to them, and the value of agricultural education then received little emphasis.

The first step towards agricultural education and research was taken after the princely gift of an American philanthropist. In recent years, though there has been considerable extension of facilities for agricultural education and research they cannot as yet be said to be adequate.

There have also been government departments for agriculture in every province, with an all-India department for agriculture, which mainly concerns itself with agricultural problems of all-India importance, and maintains the following institutions:

1. The Agricultural Research Institute at Pusa;
2. The Imperial Institute of Veterinary Research, Muktesar;
3. The Imperial Institute of Animal Husbandry and Dairying, Bangalore and Wellington;

4. The Cattle-Breeding Farm, Karnal;
5. The Creamery at Anand;
6. The Imperial Cane-breeding Station, Coimbatore; and
7. The Sugar Bureau, Pusa.

The all-India department also advises the provincial departments when called upon to do so. In addition, certain official and non-official bodies such as the District Agricultural Associations and poet Tagore's Institute of Rural Reconstruction at Surul, have been started to supplement the work of and to co-operate with the government departments. Further, for a successful working of any scheme of rural reconstruction, the harmonious co-operation of various government departments concerned—education, public health, co-operative, and agriculture—is essential and imperative.

For the purpose of taking stock of the results achieved in agricultural revival in the past twenty-five years or so, and setting the lines of future advance, a Royal Commission on Agriculture, with the Marquis of Linlithgow as its president, was appointed in 1925. Though there have been royal commissions on allied problems, it was the first royal commission appointed specifically to examine and report on the conditions of agricultural and rural economy in India. The report of the Commission is an exceedingly valuable document, and is a store-house of up-to-date information on Indian rural conditions.

As a result of the Commission, and the Ottawa Conference, the future possibilities of the uplift of the Indian peasantry are really great. It is also a good sign that the state is determined to take advantage of these possibilities.

CONCLUSION

Modern agriculture is not merely technological or scientific, it is a part of the commercial-industrial régime, and the problem is how best 'to organize agriculture as part of a price-regulated society'. The modern farmer must understand the economic forces that regulate his profit, and adjust himself to new and changing conditions.

A diagnostic study of the factors inhibiting any process of development among the mass of Indian peasantry must form the basis of a comprehensive policy of rural reconstruction in India. In this field, agricultural economists whose efforts are 'for raising humanity to a higher level' have a very important part to play in India, by carrying the torch of knowledge into villages and thereby creating a new outlook on life for the people, imbuing them with a desire for 'better farming, better business, and better life'.

PROBLEMS AND POLICIES OF CANADIAN AGRICULTURE

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THE business of farming, at one time considered a vocation able to absorb the unemployed from all other vocations, even without any special training for the job and in some sections with practically no entrance fee, has now become a business to be carried on only under licence in some sections of the world. Canada, though perhaps not in the forefront of this development, has already gone some direction along this road. The form of the agricultural policies of Canada is shaped both by the agricultural policies of other countries and by internal conditions. The latter will be the first considered.

The essential background for understanding the development of the agricultural policies which have recently or are now rapidly becoming national in Canada is a brief review of the prevalent organization of farming. Canada is somewhat unique in that approximately three-quarters of a million farms are scattered over an area extending over 3,000 miles east and west, an area varying greatly in natural resources but nearly similar in one respect, namely, that the length of the growing season outside of the area west of the Rockies is comparatively short. Canada is possibly also somewhat different from many other countries in the size of the owner-operated farms, a factor of no small importance in the policies necessary for agriculture. Variations in conditions within this extensive territory and the location of the comparatively small population require a brief examination of the types of farming which have evolved.

NATURAL RESOURCES

Sparseness of population and remoteness from markets has necessitated extensive operations as is well known. It is not quite so well known even by Canadians themselves how distinctly there have recently developed surplus areas and deficit areas for certain farm products in different sections of the country. To understand this requires a brief glance at the natural resources from the point of view of agriculture.

Canada presents fairly well-defined economic areas. Agriculturally it may be divided into three areas, the first and oldest representing the area from the Atlantic as far west as the Lake of the Woods or the eastern boundary of Manitoba, the second area the three grain-growing provinces of Manitoba, Saskatchewan, and Alberta, and the third the province of British Columbia west of the Rockies. These are rather arbitrary divisions but necessary to comprehend the variations in farm organization, production, and problems which have developed.

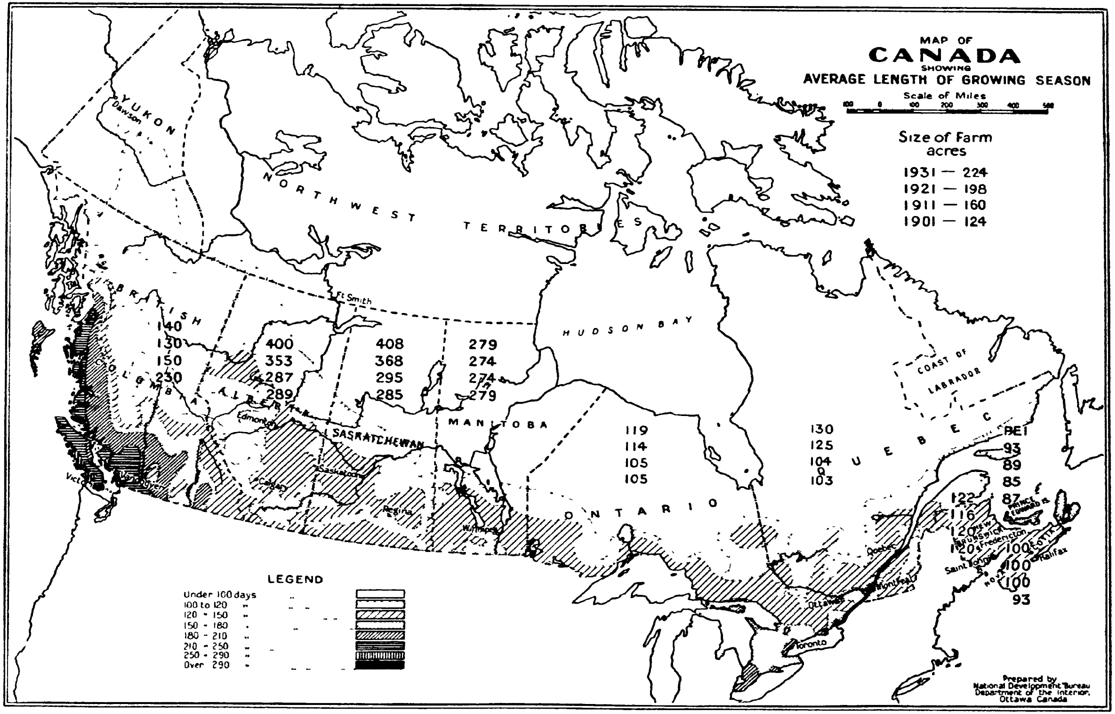
The first area, much of which is geologically unsuited to farming, is rough country well adapted to trees and with ample precipitation to provide grazing for the comparatively short summer. Arable farming in the areas suitable is largely confined to growing feed for live stock and specialties for a domestic market. Approximately 70 per cent. of the entire population reside in this area. Nearness to market as well as adaptability make dairying, poultry, fruit, vegetables, and special crops possible and profitable and lessen dependence on export markets as this area is on balance a deficit area for staple farm products.

The second area, comprising the three grain-growing provinces, contains 67 per cent. of the occupied farm land of the Dominion, and in 1931 slightly over 70 per cent. of the area of field crops and only 24 per cent. of the population. In this fertile plains region precipitation is scanty, water for live stock in some sections hard to secure, and the region generally peculiarly adapted to the growing of small grains, particularly wheat. This is the great surplus area of farm products dependent on distant markets.

The third area, west of the Rockies, is another deficit area for farm products, being more of a timber region than a farming area, yet containing some valleys peculiarly adapted to grazing and fruit-growing, and is the only part of Canada enjoying a fairly long growing season.

The natural resources dictate to a marked degree the farm organization which has already developed in the different sections. The word 'already' has been used as it must be remembered that the provinces comprising the second and the third areas are still youthful and much of the land already occupied remains still to be what is termed 'improved'. On the other hand, in the first area—the older provinces—such a large percentage of the land has been 'improved' that in some sections reforesting is being resorted to as the best utilization of the land.

Farm ownership is generally prevalent. In 1921 only about 8 per cent. of the farm operators were tenants, though a somewhat larger proportion of the area, about 15 per cent., was leased. This shows


MAP OF
CANADA
SHOWING
AVERAGE LENGTH OF GROWING SEASON
Scale of Miles
100 0 100 200 300 400 500
Size of Farm
acres
1931 — 224
1921 — 198
1911 — 160
1901 — 124
YUKON
Dawson
NORTHWEST TERRITORIES
Ft Smith
HUDSON BAY
BRITISH COLUMBIA
140
130
150
230
Victoria
Vancouver
ALBERTA
Edmonton
Calgary
400
353
287
289
SASKATCHEWAN
Saskatoon
Regina
408
368
295
285
MANITOBA
Winnipeg
279
274
274
279
ONTARIO
119
114
105
105
Toronto
Ottawa
QUEBEC
130
125
104
103
Quebec
Montreal
COAST OF LABRADOR
PEI
93
89
85
87
PRINCE EDWARD IS.
NEW BRUNSWICK
122
116
120
120
Fredericton
Saint John
NOVA SCOTIA
100
100
100
93
Halifax
LEGEND
Under 100 days
100 to 120 "
120 - 150 "
150 - 180 "
180 - 210 "
210 - 250 "
250 - 290 "
Over 290 "
Prepared by
National Development Bureau
Department of the Interior,
Ottawa Canada

that the custom of leasehold is most common in areas where farms are larger. The 1931 census revealed a slight increase both in area leased and number of renters. Farm ownership, found necessary to ensure improvement of the holding in the heavily timbered eastern area first settled, is generally promoted, and this is an important factor in the provision of farm credit which will be discussed later.

The map (see p. 122) presented to make clear the length of the growing season has also been used to show the present size and the recent changes in the size of farms in the various provinces.

When consideration is given to the length of the growing season it is also essential to include the precipitation, distribution of the precipitation, and hours of sunshine during the growing season. The following condensed table presents this data for some few points in the different provinces.

TABLE 1. *Precipitation and Hours of Sunshine*[1]

	Normal Annual Precipitation	*Normal Precipitation May–August*	*Normal Bright Sunshine May–August*
	In.	*In.*	*Hours*
Victoria, B.C.	29·70	2·99	1,047
Agassiz, B.C.	66·08	14·04	726
Summerland, B.C.	11·47	5·01	1,090
Edmonton, Alta.	17·67	11·15	1,057
Medicine Hat, Alta.	12·75	7·67	1,164
Indian Head, Sask.	17·03	10·54	940
Scott, Sask.	14·08	8·47	1,075
Winnipeg, Man.	20·37	10·92	1,048
Guelph, Ont.	28·14	11·38	857
Ottawa, Ont.	33·33	12·21	984
Montreal, Que.	40·65	13·67	896
Lennoxville, Que.	36·95	13·06	866
Fredericton, N.B.	42·78	12·06	877
Kentville, N.S.	38·09	10·62	842
Charlottetown, P.E.I.	39·90	11·73	893

This abbreviated table is presented to assist in an appreciation of the varying conditions in regard to climate not only from province to province but also within those provinces. Climatic limitations combined with topography of the country and type of soil, together with distance from markets, dictate the type of farm organization developed. The variation in conditions, here very inadequately presented, may help to explain why Canada has developed into a number of specialist regions even in a somewhat short time, why it is at present fairly definitely divided into surplus and deficit areas for certain farm products, and finally why the size of the farm varies to such a degree in the different provinces. Variations from the normal figures for precipitation here given are great enough in the grain-growing areas particularly to influence greatly production from year to year, which is an important factor in the development of the difficulties of the past four years, as we shall later note.

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[1] Data from *Canada Year Book, 1927–8*, pp. 51–63.

FARM ORGANIZATION

The figures printed on the map on p. 122 record the changes in the average size of farm in each province during the first three decades of the century.

Among the many factors which determine the type of farming and the organization of the business, the ratio of population to land is an important one.[2] This, in addition to the natural resources already referred to, accounts for the variations in farm organization developing in the various provinces. In the newer areas adapted to grain-growing and remote from markets the farmers of the grain-growing provinces consciously or unconsciously follow the dictates of the theory so well illustrated by Thünen, in *Der isolierte Staat*,[3] over a century ago which was that, where prices were low, volume must of necessity be high resulting in somewhat extensive methods and large volume per man in comparison with most parts of the world and even with more densely peopled areas of Canada.

TABLE 2. *Size of Farms in Canada*

(by provinces 1921–31)

	1921	*1931*	*Increase in decade*
	acres	*acres*	*acres*
Canada	198	224·5	+26·5
Alberta	353	400	+47
Saskatchewan	368	408	+40
British Columbia	130	140	+10
Nova Scotia	100	109	+ 9
New Brunswick	116	122	+ 6
Manitoba	274	279	+ 5
Ontario	114	119	+ 5
Quebec	125	130	+ 5
Prince Edward Island	89	93	+ 4

Of greater interest even than the gradual development of the farm organization now existing, as this has been referred to before,[4] is what happened during the decade from 1920 to 1930 and just how that period of declining prices was met. During that decade, for the first time in Canada, every province moved in the direction of larger farms. The increase in the average size of the farm in Canada by 26 acres in ten years is quite a reorganization in the business. Averages for Canada mean very little until broken down into changes in different sections, therefore Table 2 (on p. 124) is essential.

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[2] Gray, L. C., *Introduction to Agricultural Economics.*

[3] Krzymowski, R., 'Graphic Presentation of Thünen's Theory of Intensity' (P.G. Minneman translation), *Journal of Farm Economics*, Oct. 1928, pp. 461, 482.

The two provinces, Saskatchewan and Alberta, which contain the major portion of the land (in 1931 representing together 60 per cent.) devoted to field crops, comprising the areas most remote from markets and the great surplus area of farm products, added to each farm operated sufficient land to constitute almost in itself a family farm of a few decades ago. These are the two leading grain-growing provinces. The other provinces where population is more dense in proportion to land in cultivation, where dairying is more important, where cultivation generally is more intensive, and where markets are closer, did not expand the area per farm to such a great extent though moving in the same direction. While there was no doubt less need of expansion in these provinces, the fact that there was probably less opportunity on account of the older and more settled stage of development should be considered.

The increase in the size of the farms occurred in the older eastern provinces from a decrease in number of farms, particularly among the small size classes, the increase in total number being confined to the four western provinces. The result for the whole country was a decrease in number of farms of 100 acres and less and an increase in those of larger area.

TABLE 3. *Size of Farms*

Canada

	1921 *No. of farms*	*1931* *No. of farms*
All farms . .	711,090	728,664
1–10 ac. . .	44,058	43,748
11–50 „ . .	82,713	80,077
51–100 „ . .	158,292	148,258
101–200 „ . .	229,648	233,325
201–299 „ . .	31,482	35,620
300 and over . .	164,897	187,636

Increasing output by enlargement of area failed to make up for the difficulty of declining prices. Falling prices accompanied by dry seasons produced smaller crops and hence greatly reduced revenue in Western Canada. A series of small grain crops in Canada from 1929 to 1931 was not much of a brake on the price decline, and 1932, a year of abundant harvests, offered no relief on account of low prices. In Canadian agriculture in that year plenty was to a marked degree accompanied with hardship. The following figures will tell the story. During the first six years of the past ten, from 1924 to 1929, the farm price of wheat in Canada averaged 1·06 dollars per bushel, oats 49 cents, and barley 59 cents. During the past four years, 1930–3, the averages were wheat 42 cents, oats 23 cents, and barley 24 cents per bushel.[5]

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[4] Allen, Wm., 'Types of Farming in Canada', *Proceedings of the Second International Conference of Agricultural Economists*, 1930, p. 793.

THE INCIDENCE OF THE DEPRESSION

The incidence of the depression has been sadly lacking in uniformity. The major cause of the prolonged period of unemployment which has been more or less universal during the past four years has been the divergence of prices of some kinds of goods in terms of the prices of other things. When such divergence develops trade declines and unemployment follows. During the past four years the world capacity for food consumption was inadequate to furnish sufficient purchasing power at the prices prevailing to enable the consumption of enough other goods to keep the providers of these other goods employed.

Providers of some goods followed the policy of decreasing production rather than prices. From 1929 to 1932
world industrial activity dropped from 111 to 77
volume of international trade dropped from 111 „ 80
non-agricultural production dropped from 114 „ 73 while
agricultural production declined from 104 „ 102 (figures based on years 1925–9 = 100).[6]

Increasing volume of production as prices decline might be beneficial provided all industries followed this policy. When farmers were almost the only group following this policy the inevitable result was to widen the divergence between prices of farm products and other things. Now that some improvement has taken place it may be interesting to examine the record of this divergence in Canada since 1929.

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[5] Data from Dominion Bureau of Statistics, *Monthly Bulletins of Agricultural Statistics*, January numbers.

[6] *World Production and Prices 1925–32*, League of Nations; Allen & Unwin, London. Reviewed in *Economic Journal*, June 1934, pp. 345–6.

TABLE 4. *Index Numbers of Prices*[7]

1926 = 100

	Farm Products Canadian	*Retail Prices Goods and Services*	*Difference*
1929 . . .	100·8	99·9	+ 0·9
1930 . . .	82·3	99·2	−16·9
1931 . . .	56·3	89·6	−33·3
1932 . . .	48·4	81·2	−32·8
1933 . . .	51·0	78·0	−27·0
1934 (May)[8] . .	66·3	78·7	−12·4

The divergence of prices between farm products and other goods prevalent during the past four years resulted in the depression bearing heavily on those countries dependent to the greatest degree on exchanging surpluses of farm products for other goods internationally. Beneficiaries in this exchange now acknowledge this somewhat favoured position during this period.[9] It is essential to remember that those providing the surpluses of farm products continued to do business in a larger measure than the providers of many other goods and hence escaped in some measure the penalty of unemployment.

The incidence of the depression was by no means uniform in its effect upon different phases of the farming business or on different sections of the country. The lack of uniformity in this incidence between vocations was bound to influence the effect upon various sections, as the well-known lag in prices between raw products, transportation costs, retail prices, and the prices of manufactured goods allows the heaviest blow to fall on sections most remote from markets. The size of Canada and the location of its small population offers a splendid example for studying the incidence of the depression on various types of farming and on various sections of the country.

Prices of grains fell first and farthest as a general rule, animal products more slowly, although eventually reaching almost a similar level, fruits and vegetables fell very slightly, and some specialties, such as tobacco and sugar-beets, reveal a very slight falling off in revenue during this period. A combination of small crops and low prices which may occur with storable staples dependent on an export market, resulted in the incidence of the depression being very uneven in different sections of the country as revealed by the following table which shows that the three grain-growing provinces received 45 per cent. of the gross revenue during the first six years of the past ten, while in the last four years that percentage averaged only 35 in round numbers.

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[7] *Economic Annalist*, Mar. 1934, Agricultural Economics Branch, Department of Agriculture, Ottawa.

[8] Dominion Bureau of Statistics, *Prices and Price Indexes*, May 1934.

[9] Feaveryear, A. E., 'The National Expenditure, 1932', *Economic Journal*, Mar. 1934, p. 47. Royal Economic Society, Macmillan & Co., London.

TABLE 5. *Gross Agricultural Revenue*[10]

Past Ten Years by Provinces

	6-year Annual Av. 1924–9 $ million	*4-year Annual Av. 1930–3 $ million*	*Per cent. past 4 years of previous 6*
Canada	**1,697**	**901**	**53**
British Columbia	48	37	77
New Brunswick	36	25	68
Nova Scotia	42	26	63
Ontario	501	307	61
Quebec	290	174	60
Prince Edward Island	24	13	57
Total deficit area	**941**	**582**	**62**
Alberta	251	131	52
Manitoba	139	61	44
Saskatchewan	366	128	35
Total surplus area (3 provinces)	**756**	**319**	**42**

This table shows that the gross annual revenue of agriculture in Canada during the past four years averaged 53 per cent. of that of the preceding six years. In the surplus areas of staple crops, the three provinces of Manitoba, Saskatchewan, and Alberta, this percentage was 42, while in the remaining provinces, on balance an importing area for some farm products and a more densely populated area, the percentage was 62, running in British Columbia, the most dependent on other areas for food products, to 77 per cent. Prices of grain and dry seasons both contributed to this result, a result which influenced the problems evolving the policies adopted and we submit should be carefully considered in any planned production proposed.

The three-quarters of a million farms employing 1,041,618 workers in 1921 and 1,128,813 in 1931[11] and having in field crops around 60 million acres, besides the area devoted to orchards, fruits, and vegetables, and the 9 million acres of pasture, are credited with a net income of the past four years averaging 557 million dollars, whereas the average for the six previous years was 1,324 million dollars. The net income is estimated by deductions made for feed fed to live stock, seed and fruit and vegetables for home use. The net income, however, is expected to provide payment for hired labour, which, including the value of board, was valued in 1930 at 100 million;[12] payment for the entrepreneur, in this case the farmer and his family who do the major part of their own work; and to furnish the returns (if any) on the investment. It is plain that the term 'net returns' must not be taken too seriously in the light of these figures. Probably the term would not have been used had a period similar to that of the past four years been expected. Thorold Rogers, in his examination of six centuries of wages, came to a period where it required more than fifty-two weeks' work to provide a year's sustenance and leaves the hiatus of how the balance was made up as something of a mystery. Somewhat similarly the 'net returns' of the farming industry in Canada during the past four years leave a considerable hiatus between income and outgoings.

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[10] Data from Dominion Bureau of Statistics, *Monthly Bulletins Agricultural Statistics*, March numbers.

[11] Booth, J. F., 'Some Economic Effects of Mechanization of Canadian Agriculture with particular reference to the Spring Wheat Area', *Proceedings of the World's Grain Exhibition and Conference, Regina, Canada, 1933*, p. 357.

AGRICULTURAL POLICIES

Several attempts to bridge this hiatus have been made including:

(*a*) Price stabilization.
(*b*) Bonuses on wheat growing.
(*c*) Imperial Preferences in trade.
(*d*) Provision of credit.
(*e*) Marketing legislation.

Price stabilization in its early stages evolved somewhat unostentatiously through the governments of some of the provinces guaranteeing the advances made to the wheat-grower who was not particularly adverse to receiving the rewards of his efforts, which could only be garnered in the future, in the immediate present. Provincial guarantees were freely entered into in much the same spirit as Antonio displayed when negotiating with Shylock, who is reported to have signed in merry sport a bond. There came a time when provincial credit was exhausted, and federal support was required, and this still furnishes the foundation for financing the carry over of wheat which it is generally agreed has succeeded in some degree in stabilizing the price during the past few years.

The policy of direct bonuses on wheat growing lasted only one year, was undertaken when it was a common custom in many countries, amounted to only 5 cents per bushel, and therefore is of small interest in this list.

The preference for exports in Empire markets has perhaps been the most important national policy adopted in Canada for agriculture during this period so far. The Ottawa Trade Agreements, although by no means confined to agriculture, represent chiefly an endeavour to secure a better market for farm products.[13] The arrangement then made has not been in force very long but has been responsible for improving the export outlet for some farm products, notably apples and bacon. In this connexion it is interesting to note that the closing of some other markets made Imperial Preference necessary. For four years now the 'world price' for some things, notably wheat, has existed only in a small section of the world. A repercussion of this is that the 'world price' for bacon has become somewhat restricted, and at the moment, so far as can be learned, the price for live hogs in Canada is not only about double the price in the United States but somewhat higher than in Denmark. This could only occur under the arrangement of the Ottawa agreements plus the British Marketing Act with its quota arrangements and adjusted prices for the domestic product in Britain. Whether this present variance in the price of hogs in different parts of the world will last as long as the variation in the price of bread grains has, is quite another question. Yet even its temporary prevalence is made possible only by the policies mentioned, and in this way is a repercussion of the interference with the price of grains.

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[12] *Canada Year Book, 1933*, p. 1123.

The provision of credit by the federal government has become a necessity from the conditions outlined. It is claimed that during the past several years some 9 million dollars of federal funds have been advanced to the provinces for the purchase of seed.[14] Apart from that, which may be considered an emergency measure, there has been recently increased dependence on the Canadian Farm Loan Board established in 1927 to finance farm mortgages.[15] During the last session of parliament an appropriation of $30,000,000 was made for the extension of the operations of this board and legislation passed to provide that where private negotiations between creditor and debtor may not be satisfactorily settled the mortgagor may pay off the loan whether due or not if funds may be secured from the Canadian Farm Loan Board. It has also been recently provided that second mortgages may be arranged for by the Board.

It should be mentioned in discussing the provision of credit that the Canadian Banking regulations forbid the loaning of money by the banks on real estate, and mortgages on real estate may only be acquired in securing a previous loan. The prevalence of ownership and the comparatively large size of the owner-operated farms and the amount of equipment necessary make farm credit essential, particularly in the districts where farming is a specialized and commercialized undertaking. Two-thirds of the farms operated in 1931 were, however, at that time free of mortgage, which may be considered not too bad a showing, particularly when the decline in farmland values is apparently arrested, the estimated value being the same in 1933 as it was in the previous year.

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[13] Premier R. B. Bennett; Chairman's Address, *Report Imperial Economic Conference, 1932*, p. 69.

[14] *Financial Post*, Toronto, June 2, 1934, p. 5.

[15] *Annual Report of Canadian Farm Loan Board*, 1933, p. 9.

When import markets are regulated by quotas, and public funds are involved in the production, storing, and transporting of farm products, it can scarcely be surprising that definite and active measures are proposed to regulate the selling of such products. Hence we have the Natural Products Marketing Act which has been referred to as a necessary piece of legislation.

This Act provides for local boards to deal with products marketed within one province, the regulation of inter-provincial and export trade, provision for regulation of imports and exports and the investigation of spreads between the prices paid to farmers and those charged to consumers.[16]

This Act provides the enabling legislation to meet provincial demands for the regulation of marketing of products dealt in between the provinces, which was hitherto unconstitutional, and the last section provides that if it be found that parliament has exceeded its powers and one or more of its provisions prove *ultra vires* the remaining provisions shall stand as if they had been originally enacted as separate and independent enactments.[17]

SUMMARY

In all or any of the policies practised or proposed ample precedents have occurred in other countries. It would, therefore, be superfluous to discuss their merits or demerits in detail. Why these policies have been resorted to has been deemed important. In this connexion it is necessary to state in brief (as this point has been amplified elsewhere)[18] that apparently the major cause of the increased restrictions on trade internationally since 1930 has been an endeavour to defend the farming business from price declines.

In Canada the object of the marketing legislation proposed is apparently to secure some measure of collective bargaining for farmers—a provision enjoyed by labour for some time and attributable to the earnest efforts of some economists and the acquiescence of many more. This power of collective bargaining may be of doubtful value. Labour in some industries in Canada has been fairly successful in collectively bargaining itself out of a job during the past four years. The annual wage of farm labour for 1933 is recorded as $322[19] (including the value of board and lodging) which is one dollar less than that prevailing in 1914 when the figure was $323, while the index number of the rate of wages in the six leading industries in which records are kept was in 1933, 172·6,[20] calculated on a base of 1913 = 100. Farm labour without any collective bargaining power is practically on a pre-war wage, and other industries over 70 per cent. higher in *rate* of wages. Under such conditions it is not difficult to understand that unemployment has been more noticeable in some other industries than in agriculture. It is to be sincerely hoped that the farming business may not use their collective power to bargain themselves out of a job.

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[16] Dr. G. H. S. Barton, The Natural Products Marketing Act, Annual Convention C.S.T.A., Macdonald College, June 26, 1934.

[17] Bill 51, The Natural Products Marketing Act, 1934, Section 26, p. 11.

[18] Lattimer, J. E., 'The New Economic Nationalism in Relation to Agriculture', *Proceedings of the Canadian Political Science Association*, 1934.

Contrary to common opinion there may be considerable unemployment in agriculture, particularly in a country where the length of the growing season is not long and in sections without a farm supply of fuel. Seasonal unemployment in agriculture is not brought so plainly to the attention of the public as lack of work in other industries, and a popular remedy for unemployment in urban industries is to assist the unemployed to return to the farm, not to commercial agriculture but to subsistence homesteads. In point of time it has been a short run from *subsistence wage* to *subsistence homestead*. The latter term is no more popular than was the former.

No doubt in the decentralization of industry made possible by the use of electric rather than steam power and the modern transport provided by the motor-car, some provision may be made for small areas of gardens to afford opportunities for the unemployed or partially employed of the cities to use part of their unwelcome leisure in a way improving their morale, gaining a more careful and accurate measure of the services of others, affording considerable pleasure and, perhaps least important, securing some slight profit.

Policies recently resorted to in relation to agriculture in Canada may be considered the logical culmination of interferences in business which have sheltered some other industries for at least half a century. If and when labour and capital is prevented from moving freely from less profitable to more profitable industries, then it is clear that automatic improvement is impossible. Hence planned economy or regimentation of business is frequently discussed.

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[19] *Monthly Bulletin Agricultural Statistics*, Feb. 1934, vol. xxvii, no. 306, p. 42.

[20] 'Wages and Hours of Labour in Canada 1929–1933', Supplement to *Labour Gazette*, Jan. 1934, p. 5.

There has always been some planning. Evidence that such prevailed at an early period is the rumour that Lycurgus persuaded the Spartans to use iron as a medium of exchange when gold and silver were available, to prevent over-trading and amassing of fortunes. *Laissez-faire*, though frequently advocated, was never practised. Advocacy of *laissez-faire* for farming by those enjoying shelter from world competition is not uncommon. The regulation of some industries and simultaneously the lack of it in others has not produced desired results. The planning recently in vogue is unsatisfactory. What is now in demand is planning that will provide more acceptable results.

If there has always been planning and results are unsatisfactory, then it follows that planning in itself is a rather hazardous business. It may well be that the most effective planning is that which allows business to regulate itself automatically whenever this result may be satisfactory. Too much planning may be as unwelcome as the 'plan' for the day offered to the little girl who objected with the words: 'Mother, *must* I do as I like all day?'

The degree of planning of business is volitional. Admission that the difficulties of the agricultural industry are largely the result of unwise planning is an important feature in any future policy. The only errors capable of our correction are our own, while much time may be lost, and has been lost, blaming difficulties of business generally and agriculture also on 'circumstances over which we have no control'. Circumstances over which we have no control generally look after themselves pretty well. If not, there is not much to be done about it. Possibilities hinge around the circumstances over which we have control. All change (we will not say progress as that would only lead to futile argument) that has come about since history has been dependable may be attributed to increased control over circumstances and environment.

There are those who still maintain that greater freedom should be allowed for business generally, automatically to adjust itself. Perhaps when enlightened self-interest becomes somewhat more enlightened this may occur. In the meantime there is no mistaking the trend of the times which is towards increased interference and regulation.

The prolonged period of unemployment is largely due to the disparity between the prices of some goods in comparison with other things. Employment is increasing now that these prices are assuming a more normal relationship. Prolonged periods of price discrepancies compel unbalanced production. The goods priced too low in terms of other things will not exchange for a quantity great enough to keep the purveyors of high-priced goods employed. What causes price discrepancies? Defences of various forms surrounding some sheltered industries while other industries are left to meet world competition undefended. This has not been a matter of years or decades but of centuries. While farming was, and where it is to-day, to a great degree a self-sufficing industry, a greater degree of freedom was and is allowed this business than many others. When and where farming becomes specialized and commercialized, farms mortgaged to wealthier people, taxes in arrears, and the business unable to finance itself, then regulation of income as well as outgoings becomes more necessary than altruistic.

The difficulties of planning agricultural production are obvious. There is one thing that the past four years has demonstrated, namely, that if the demand for farm products is inelastic it is also fairly stable. Indeed, during the past few years it has been demonstrated that there is some elasticity in demand for some farm products in some places—provided price permits—as consumption of some food products reached a record volume in the year 1932,[21] now admittedly the low point in the depression. The comparative stable demand for farm products may make planned production of food products less difficult than the allocation of other things, notwithstanding vagaries of the seasons. On this account agriculture may not be the least able to conform to the increased regulation of business at the moment somewhat universal.

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[21] Feaveryear, A. E., 'The National Expenditure, 1932', *The Economic Journal*, vol. xliv, no. 173, Mar. 1934, p. 47; The Royal Economic Society, Macmillan & Co., London, England.

THE AGRICULTURAL SITUATION IN U.S.A.

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REVIEWING conditions in many countries it may be observed that as a rule farmers in those countries farthest from their markets and most specialized suffered most from the depression. As prices fall, distance and fixed or slowly yielding handling charges raise barriers between producers and consumers even within national boundaries. Import duties and other restrictions upon international trade add greatly to the handicaps of surplus producers, while they protect producers in deficit countries. Thus farmers in England and Germany have not suffered so much as the surplus producers of Canada and the United States. I shall not undertake to explain the depression or to deal at length with its history and its effect in the United States, but wish to present some of the measures of improvement and call attention to some of the important factors contributing to the improvement in condition.

The position of the farmer in the United States has greatly improved in the past year. Income from farm production declined at a rapid rate from 1929 to 1932, intensifying the burdens—taxes, high interest charges, high freight rates, and costs—of which farmers were already complaining in 1929. In 1932 the decline seemed to be checked and some improvement appeared in the latter half of the year, but this was not sustained. Finally, the banking crisis and the change in administration in the spring of 1933 marked the bottom of the depression. Since then improvement in the prices of farm products and in farm income has been offset to some extent by increases in costs of commodities purchased; but with taxes and interest charges reduced, debts scaled down and refinanced, and a reconstructed farm credit system, the position of the farmer has been greatly improved.

Marked improvement followed the inauguration of the relief measures of the new administration. Income from marketings of farm products had declined from $10,479 million in 1929 to $4,328 million in 1932, but in 1933 exceeded that of 1932 by $540 million, an increase of about 12 per cent. Benefit and rental payments added $159 million, making the total gain in dollar income of $699 million, or 16 per cent. over that of 1932. Further gains are being registered in 1934. It now seems likely that income from marketings will reach about $5,400 million, and that other cash payments will bring the total close to $6,000 million in 1934, an increase of more than 40 per cent.

Price changes tell about the same story as income estimates, except that the exchange value of farm products has not improved as much as the gross dollar income. The prices of farm products in the United States reached their lowest level in February 1933, which was only 49 per cent. of the pre-War level; having dropped from an average of 138 per cent. in 1929. From this point prices recovered at a rapid rate to July 1932, then slumped, but in July 1934 had reached 80 per cent. of the pre-War average which is the highest level registered by farm prices since April 1931. The prices of commodities farmers buy also declined, but not so rapidly as the prices of farm products. At the low level in March 1933, these prices were at the pre-War level, having declined from 152 per cent. in 1929. Thus the exchange value of fixed quantities of commodities farmers sell, for what they buy, declined from 91 per cent. of pre-War in 1929 to 49 per cent. in February and 50 per cent. in March 1933. The sharp rise in the prices of farm products in the few months after March was followed, but slowly, by an increase in the prices of commodities farmers have to buy. However, these prices continued to advance in the latter part of the year, and in July of 1934 had reached 122

Indexes of Net Agricultural Production, Prices, and Income, United States, 1919 to Date

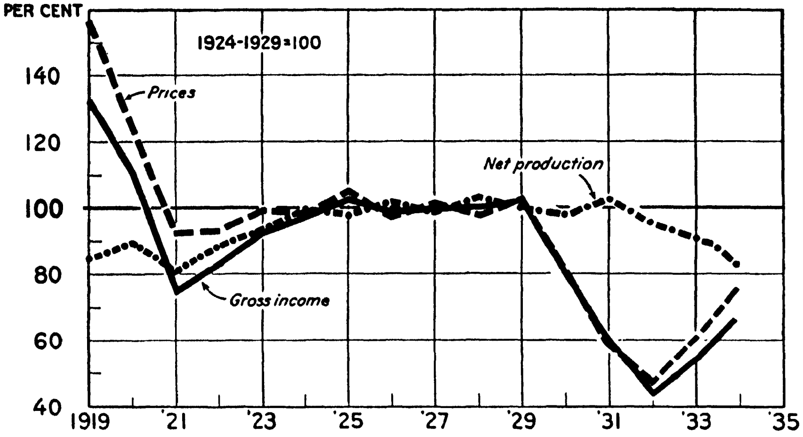

FIGURE 1

per cent. of the pre-War level. The greater advance in the prices of farm products had resulted in an increase in the exchange value of farm products from the low level of 49 to 66 per cent. of the pre-War level, an improvement of nearly 35 per cent. from the low level of February 1933.

The position of the farmer has also been improved by reductions in taxes and in interest burdens. The great reduction in income year after year following 1929 forced curtailment in expenditure and defaults of taxes, interest payment, and in many cases the principal of debts. Wage payments to hired labour, rents, expenditure in the purchase of machinery, and other operating costs were cut more than 50 per cent., but taxes and interest charges remained high. The taxes on farm real estate were reduced from 243 to 191 per cent. of pre-War, or only 21 per cent., and the interest charges on farm mortgages from 231 to 207 or only about 10 per cent. between 1929 and 1932. In the past year these burdens have been further reduced. By March 1934 farm real estate taxes had been reduced to about 160 and interest charges to about 170 per cent. of pre-War, reductions of 16 per cent. and 18 per cent. respectively. Thus the position of the farmer in the past year has improved by a material reduction in fixed charges that

Cash Farm Income and Prices Paid by Farmers, 1924 to Date

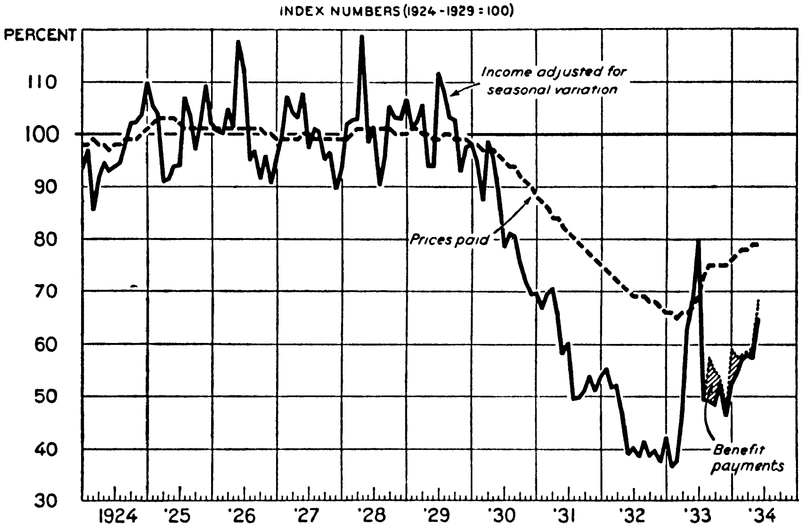

FIGURE 2

had become very burdensome, as well as by increased income. Taxes and interest charges are preferred claimants on income. In 1929 they amounted to only 10 per cent., but in 1932 would have required about 20 per cent. of the gross income from agriculture. The reduction in these charges against the increased income will lighten the burden from 20 to about 15 per cent. of the gross income.

If labour were hired and other expenditures were made for the same volume of goods and services as before the depression, the gain from reductions in interest and tax charges would be more than offset by increases in wage rates to hired labour and in the prices of commodities purchased for use on the farm. Weighing all of these items, including real estate taxes and interest upon mortgages, approximately according to average outlays, they increased from 106 in March 1933 to 122 in March 1934, an increase of about 15 per cent., whereas the prices of farm products increased more than 40 per cent. Estimating actual expenditure and receipts, it is found that the income from the agricultural production of 1933 yielded the farmers of the United States a small net return for their management and investment, the first net balance since 1929.

Prices Received, and Prices, Wages, Interest, and Taxes Paid by Farmers, 1910 to Date

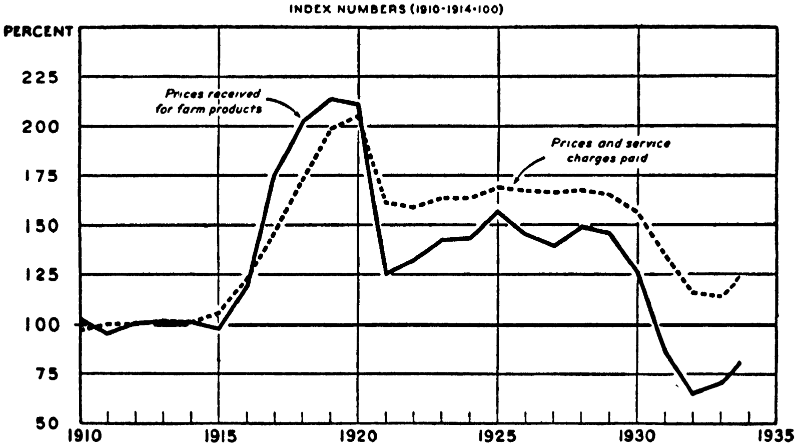

FIGURE 3

The above estimates of improvement in income from agriculture in the United States as a whole may be checked by information from thousands of individual farms showing their individual accounts for the year's operation. The farmers reporting have farms larger than the average, but they represent a large share of the commercial agriculture of the country. The average cash receipts of these farmers declined from $2,669 in 1929 to $1,014 in 1932 and recovered to $1,222 per farm in 1933. Taxes per farm declined from $187 to $149 and then to $127. Interest paid declined from $199 to $173 and then to $160. The net result after deducting interest and other cash outlays from cash receipts, in 1929 was $898, in 1932 only $84, but in 1933 about $355 per farm. An additional gain per farm will be registered in 1934. These net figures represent the cash available per farmer for buying the necessaries of life not raised on the farm and for savings or investments. Obviously the average farmer had nothing for saving or investing in 1932. He pinched his cash expenditures to the minimum, and many deferred payments of debts, interest, and taxes. The additional income in 1933 made it possible for the average commercial farmer to recover partly his former manner of living and enabled many farmers to resume payments of debt principal, interest, and taxes. Furthermore, improvement in prices and income was reflected in an increase in the value of the

Prices Paid by Farmers, Wages Paid to Hired Labour, Interest Payable on Mortgage Indebtedness, and Taxes Payable on Farm Real Estate, 1910 to Date

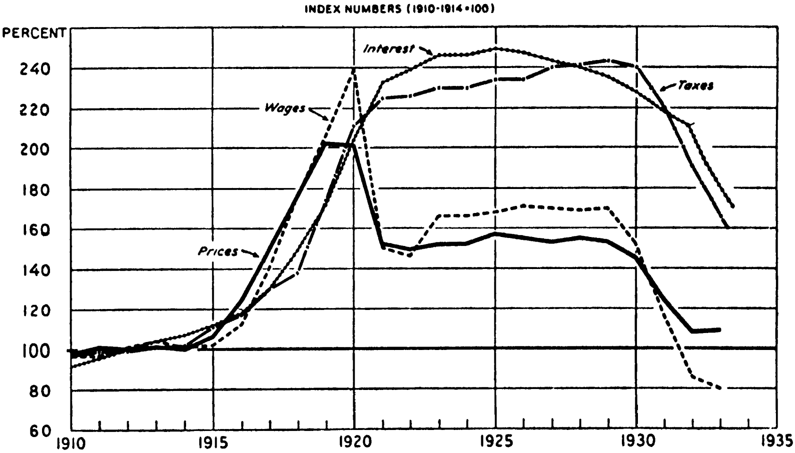

FIGURE 4

farmer's property, and this in turn, of course, contributed further to an improvement in his credit status.

Having taken some measures of the recovery that has taken place in the agriculture of the United States, let us consider briefly how this recovery has been brought about. Many different factors have contributed to bringing an end to the depression and starting the revival. Individuals who have devoted special attention to specific factors and remedial proposals have over-emphasized the particular factor or factors with which they have dealt. Before beginning to particularize let me observe that time in itself is an important factor in bringing an end to a depression and starting revival. Borrowing an expression from Warren M. Persons, there is 'bed-rock' in our economic structure that eventually stops depressions. Extensive readjustments must follow great upheavals such as the late War. Much energy is spent in resisting necessary readjustments. The resistance, however, wears out, superficial structures fall down, individuals and institutions become bankrupt or readjust, and we prepare to operate on a new basis. This is a matter of time, and thus we have great cycles of booms and depressions.

The most dramatic incident marking the turn in the United States was the closing of banks throughout the country coincident with the inauguration of a new political administration. This set the stage for a new deal.

AGRICULTURAL RELIEF

The primary Act for the relief of agriculture was approved May 12, 1933, and the operations under each of the three titles of that Act have contributed materially to the improvement in the position of the farmers during the past year. The operations and results achieved under this Act will be considered under three separate titles: (1) Agricultural Adjustment; (2) Agricultural Credits; and (3) Financing and Emergency Power to Coin Money and Regulate the Value Thereof. These will be considered in the reverse order of the title numbers in the Act.

The revaluing of the dollar contributed to a sharp rise in the price of several important farm products, thus tending to revive confidence in prices generally, and to increase the flow of dollars to many producers in the country. The first Act in this direction antedated the signing of the Relief Act. The Government suspended gold payments on foreign account on April 19, and from that date the prices of farm products of the United States most directly affected by foreign market conditions rose at a rapid rate.[1] The farm price of cotton advanced 73 per cent. between April 15 and July 15. The average farm price of wheat advanced 92 per cent. in the same period of time. This rapid rise in the price of wheat was aided by the prospect of a short crop in the United States and the rise in the price of cotton by a revival of textile manufacturing activity. But the increase of 44 per cent. in the dollar price of the gold equivalent of the old gold dollar in exchange was an important factor in the price advances of these commodities.

Confidence that the great decline in prices generally had come to an end and speculation as to the rate of recovery and of devaluation boosted the prices of all commodities traded in extensively on futures exchanges. The prices of six speculative commodities in the markets of the United States rose 70 per cent. from the middle of April to the middle of July.

The extent to which short-time speculation entered into the rise is suggested by the decline in prices that followed from July to October 1933. Further devaluation of the dollar in September and October failed to do more than check the decline. The advance in prices from October through January was a reflection of the further devaluation of the dollar and general business recovery. It should be observed, however, that the influence of the devaluation of the dollar upon prices of farm products probably did not stop with stabilization at the point of official revaluation. As the prices of some commodities respond rather slowly to the forces which are pulling upon them, the full force of devaluation would not be registered in the general price level until some time after stabilization. As stabilization brought to an end the influence of speculation upon the commodities in international trade on exchanges which respond most promptly to price-making forces, the prices of other commodities continued for some time to adjust themselves to the revalued dollar. The great gain to agriculture in this revaluation came from the fact that the raw material products of agriculture responded most promptly, while the prices of many of the commodities that farmers buy remained unchanged or changed slowly, and interest charges and taxes were being readjusted downwards.

FARM CREDIT

Action under the title 'Farm Credit' has contributed materially to the great improvement in the position of the farmer. The inauguration of the Farm Credit Administration by executive order, March 27, effective May 27, 1933, brought together several agencies that had been charged with providing credit to agriculture in various forms. The legislation approved May 12 as part of the Agricultural Relief Act may be cited as the Emergency Farm Mortgage Act, and its purpose was to bring relief to farmers by providing for the refinancing of indebtedness, reducing interest rates, and deferring payments on the principal of loans. This was followed shortly (June 16) by the Farm Credit Act of 1933, which added institutions and functions necessary to provide a complete federal credit service for agriculture.

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[1] Following this action the value of the dollar declined at a rapid rate. This devaluation of the dollar anticipated the revaluation provided for in the Relief Act.

Farm credit had collapsed under the long, drawn-out depression. Hardly a shred of a basis for credit remained in agriculture. Many institutions were bankrupt or nearly bankrupt because of a shrinkage in the value of agricultural paper. Many banks failed to reopen after the national bank holiday, largely because they held large volumes of farm mortgages upon which they could not realize cash. Action by the administration was prompt and effective. The federal farm-land bank system was quickly reorganized and the refinancing of loans got under way at a rapid rate. The introduction of a valuation policy recognizing that the extremity of the depression was a temporary matter, did much towards restoring confidence in land values. The refinancing of mortgage debts provided relief for the lending institutions that had become overburdened with mortgage holdings. Business in rural communities generally responded promptly to the thawing-out of credits and a revival of confidence.

The farm debt burden in the United States in 1932 is estimated to have been about $12,000 million. Of this amount the farm mortgage debt amounted to $8,500 million. The bulk of all this debt was carried by private institutions or individual persons. Insurance companies carried a large share of the farm mortgage debt. Banks carried large volumes of both farm mortgages and short-term loans upon collateral or personal security. The total farm debt in 1932 was about equal to the gross farm income in 1929, but in 1932 it was nearly three times the total of the gross income for the year. Thus the burden of which there was some complaint before the depression could hardly be carried at the bottom of the depression. It was wrecking both the farmer and those persons and institutions carrying his debts. The Farm Credit Administration came to the relief of both.

The primary objectives of the Farm Credit Administration are to afford relief by refinancing debts and to open and keep open credit channels for the farmer. In the first year of operation the Administration loaned on farm mortgages over $1,000 million to about 400,000 farmers throughout the country. About 90 per cent. of these loans has been used to refinance existing indebtedness. The federal land banks and the Land Bank Commissioner now hold more than $2,000 million in farm mortgages. This refinancing has made it possible for many farmers to save their homes and farms from foreclosure.

In order to enable many heavily indebted farmers to refinance their indebtedness through the Farm Credit Administration, it has been necessary for creditors to scale down their loans so that the indebtedness of the farmer would not exceed 75 per cent. of the value of the farm, the limit upon the amount which may be loaned by the Land Bank Commissioner on either first or second mortgages. The extent to which these farmers have refinanced their debts through the Farm Credit Administration and have been given a new chance to carry on is indicated by the fact that during the period June 1, 1933, to July 25, 1934, borrowers receiving 66,825 loans obtained a scaling-down in their indebtedness amounting to $51,607,374. Measured in another way, 16 per cent. of the loans made were to borrowers who obtained scaling-down, and the amount scaled-down constituted 26 per cent. of these borrowers' prior indebtedness. These borrowers have also benefited from interest reductions, as the rate of interest charged by the federal land banks and the Land Bank Commissioner is lower than that previously paid by the borrowers on the indebtedness refinanced. The savings in interest on interest-bearing indebtedness refinanced during the above stated period is estimated to be $15,375,873 a year, or nearly one-fourth of the interest formerly paid on that indebtedness.

All farmers having loans from federal land banks received a reduction in their interest burden under the Emergency Farm Mortgage Act. The interest rates on federal land bank loans in force as of May 12, 1933, ranged from 5 to 6 per cent. and averaged 5·4 per cent., while loans made since May 12, 1933, are made at 5 per cent. if the borrowers obtain them through national farm loan associations and 5½ per cent. if they obtain them direct from the banks. The Act provides, however, that during the five-year period ending July 1938, the rate of interest on loans through national farm loan associations be reduced to 4½ per cent. Thus, on more than $1,000 million in unpaid principal of loans in force as of May 12, 1933, this interest reduction averages nine-tenths of 1 per cent. a year, and on the loans made since that date, one-half of 1 per cent. a year. The reduction in the interest rate on direct loans made since May 12, 1933, is also one-half of 1 per cent. a year.

In addition to providing for these reductions in interest charges, the Emergency Farm Mortgage Act also made it possible for the federal land banks to extend delinquent unpaid instalments of loans at the request of borrowers during the five-year period ending July 1938. To June 30, 1934, nearly $50 million of unpaid balances of matured items, consisting mostly of interest and principal of instalments and cash advances for taxes, has been extended. The Emergency Farm Mortgage Act also authorized the federal land banks to defer until July 1938 the principal portion of maturing instalments on loans in good standing. To relieve the federal land banks of any burden from extensions and deferments granted, Congress authorized that extensions and deferments in force may be used by the banks as a basis for paid-in surplus claims from the United States Treasury.

During the first year of the Farm Credit Administration farmers were assisted in building a system of 650 local production credit associations designed to make loans on crop and chattel security and serve as permanent sources of short-term credit. These associations constitute a nation-wide system of low-cost credit available to every farming community at a time when loans from private agencies have been difficult, if not impossible, to obtain. In lending short-term money to farmers on a business basis through their own associations, the Farm Credit Administration opened the services of the federal intermediate credit banks to thousands of farmers and live-stock men, and made production money available on a nation-wide scale at the lowest rates ever paid by farmers for this type of credit. Under this new line of credit, the production credit associations are making production loans to farmers at 5 per cent. interest, which is from 2 to 3 per cent. lower than the rate charged by many private lending agencies. This saving to American farmers undoubtedly will amount to more than $1 million during the year 1934. In addition to the direct saving, the reduction in interest rates effected by the production credit associations has caused some private lending agencies to lower their rates to farmers in order to place their rates more nearly in line with those of the new credit system. Farmers have sometimes had to pay from 10 to 15 per cent. and sometimes even more for short-term credit from store-keepers and dealers, but the establishment of production credit associations throughout the country gave them an opportunity to pay cash for their farm operation requirements and thus make a liberal reduction in their overhead expenses.[2]

Thus the activities of the Farm Credit Administration have contributed materially towards reducing the debt burden of the farmer in terms of capital payments to be made, in the time in which to make the payments, and in interest charges. They have placed the farmer in a more comfortable position with reference to his creditors, enabling him to retain his farm and continue to operate about as usual. They have contributed towards the reopening of country banks, to the revival of business generally in rural communities, and to improving the demand for the industrial products made in the city for farmers.

AGRICULTURAL ADJUSTMENT

The Agricultural Adjustment provisions of the Emergency Agricultural Relief Act, administered by the Department of Agriculture, have contributed towards curtailing production, eliminating burdensome surpluses of farm products, and increasing the income to farmers both directly through benefit payments, and indirectly through increases in the prices of farm products. In this Act agriculture is declared to be a basic industry and the transactions in agricultural commodities affected with a national public interest. It is declared to be the policy of Congress 'to establish and maintain such balance between the production and consumption of agricultural commodities, and such marketing conditions therefore, as will re-establish prices to farmers at a level that will give agricultural commodities a purchasing power with respect to articles that farmers buy, equivalent to the purchasing power of agricultural commodities in the base period'. This goal was to be approached gradually and with due regard to the consumer's interest.

The primary purpose of the Act was to readjust farm production to the demand for farm products of the United States, both at home and abroad. Industry had curtailed production and maintained prices. Agriculture had not done and could not do so. Agricultural production in 1932 was only 5 per cent. less than in 1929, whereas industrial production had declined nearly 50 per cent. The decline in industry would have been greater still had it not been that agriculture continued to furnish grist for the mills and animals for the packing establishments, despite the great decline in prices. The farmer continued to produce nearly as much as before the depression began, and had to take prices 50 per cent. lower, whereas the industrialist cut down his plant, sent his labour to the country to live off the farmer, and in many cases continued to charge the farmer about the same as before, for whatever the farmer could buy. Under the administration of the Adjustment Act, the Government is attempting to help the farmer to do what, unorganized, he could not do, and thus put him on a more nearly equal footing with the industrialist.

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[2] Mr. George C. Haas, Deputy Governor of the Farm Credit Administration, generously supplied data and contributed part of this summary of the accomplishments of the Farm Credit Administration.

The depression abroad weakened foreign demand as well as the domestic demand for farm products, and barriers imposed by foreign countries against the import takings of our products caused surpluses to pile up at home and further depressed prices. Recognizing that recovery from war conditions lessened the dependence of many European countries upon the products of the United States, and that international trade barriers were becoming serious obstacles to the sale of farm products in foreign countries, it seemed necessary to lessen our dependence on foreign markets.

Great surpluses of wheat and cotton had accumulated, and the first move was to undertake to reduce the acreages of these crops. Cotton was being planted when the Adjustment Act was passed, and the administration moved promptly towards eliminating part of the acreage planted in the spring of 1933. Most of the farmers in the Cotton Belt signed contracts to reduce acreage. In fact, the total area contracted out amounted to 10,400,000 acres, about one-fourth of the area planted. If the acreage contracted out had been harvested, with yields about the same as realized for the season on the remaining acreage, production would have been increased 4,400,000 bales, making a total production of more than 17 million bales of new-crop cotton in the face of a large carry-over. And this would have resulted in very low prices for cotton. After eliminating about one-fourth of the acreage planted, the crop turned out to be equal to that of the previous year. In other words, the accomplishment of the first year in adjusting cotton acreage was to prevent an increase in production and an increase in the surplus stocks of cotton.

Considering prices and income, the significance of cotton acreage reduction in 1933 was mainly to prevent losses from harvesting a larger crop. The farm price of cotton in 1932 had averaged 6·5 cents per pound. The devaluation of the dollar itself probably would have raised that to more than 9 cents per pound. Had a crop of more than 17 million bales been harvested, however, the price probably would have been reduced to 6 cents per pound or less, in spite of devaluation. The total crop probably would have sold for fewer dollars than were realized from the crop actually harvested, and the additional cost of production and marketing would have greatly reduced the net income to the farmer. The average farm price for the 1933 crop was 9·8 cents per pound.

The income from the lint of the cotton crop of 1933 was estimated at about $640 million, compared with $420 million realized from the crop of 1932. This is an increase of $220 million, and to this is to be added the $163 million realized from benefit payments, making a total increase in the income of cotton farmers in 1933 over 1932 of about $380 million, or about 75 per cent., of which about half may properly be attributed to the activities of the Adjustment Administration.

In the second year of operations upon cotton, the weather has co-operated with the Adjustment Administration in reducing production. The area in cultivation on July 1 was estimated to be 27,371,000 acres, after allowing for average abandonment, compared with 36,542,000 acres in cultivation on July 1, 1932. Conditions as of August 1 indicated a crop of only 9,195,000 bales, compared with 13 million bales harvested in 1932 and in 1933. Should the crop turn out to be as now indicated, this will bring the supply down to the lowest level for some years, and the world carry-over of American cotton at the end of the present season will be reduced fairly closely to a normal basis. Since the demand for cotton is sufficiently inelastic to cause small crops to be sold at higher prices than large crops, the reduction of the supply to this level probably will result in relatively high prices for American cotton in the coming season.

A few other observations should be made with respect to the cotton programme. One of the problems confronting the administration was the liquidating of Farm Board holdings of cotton. This was done by the Government taking over those holdings. At the beginning of the harvest season, with a fairly large cotton crop in prospect, and a large carry-over, prices were being depressed. The administration strengthened the market by announcing a loan on cotton, valuing it at 10 cents per pound, which was above the current market price. This tended to strengthen the market, and the rise in prices subsequently justified this loan value. Undoubtedly the programme of curtailment in itself had a strengthening influence upon the market. Continuing the large acreage and production of recent years would have maintained large stocks and low prices, but the acreage curtailment indicated that sooner or later these large stocks would be used up and prices would rise materially. This led to an inclination to buy cotton in anticipation of a later reduction in supply.

One may ask about the effect of processing taxes upon the price of cotton. It appears from analysis that the consumer demand for cotton is sufficiently inelastic to prevent the tax of 4·2 cents from being taken wholly out of the price to the farmer. The manufacturers of cotton goods have marked up their goods to cover the processing tax, and apparently this has but very little effect upon the consumption of goods. While it has not been definitely determined to what extent there was a reduction in price to the farmer, it is reasonably certain that the reduction was but little if any. Possibly the influence of improved business conditions upon the demand for cotton was offset to some extent by the increase in the cost of cotton to manufacturers on account of the processing tax.

The Adjustment Administration also undertook to clear the wheat surplus in the United States by reducing production of that crop. A large percentage (77 per cent.) of farmers contracted to take out of production 15 per cent. of their average acreage of the period 1930–2. The handling of the wheat crop is much more complicated than that of the cotton crop. Much of the production is for home use and is scattered among a great many farmers throughout most of the United States. Commercial producers generally considered the offered benefit payments a sufficient inducement to curtail acreage. Many small producers were either not in a position to enter into such a contract or considered it inadvisable to do so. Some producers not entering into contracts increased their acreage in expectation of higher prices because of reduced production, and in part to guarantee their own needs against the possibility of having to buy higher priced wheat. Nevertheless, a considerable acreage was contracted out of production for the 1934 season.

The acreage of winter wheat seeded in the fall of 1933 was reduced 7·4 per cent. from the 1930–2 average, and 4 per cent. from the acreage seeded for 1933. Since the contracts had not been completed in advance of seeding, it was expected that some of the acreage seeded would be eliminated from harvest under contract. Nature cooperated with the administration in reducing acreage. Winter killing was very heavy; also drought in the spring wheat territory prevented seeding, even to the extent intended by farmers under contract. The winter wheat acreage for harvest was greater than in 1933 when the abandonment was very great, but about 18 per cent. less than harvested annually in the three years 1930–2. Spring wheat acreage was reduced to 60 per cent. of the acreage harvested the previous year. Furthermore, the drought reduced yields so that the production is considerably less than would have been expected under normal conditions on the acreage that would normally have been seeded and harvested.

The most significant effect upon the prices of and income from wheat has been in moving an export surplus from the Pacific coast without permitting it to depress prices in the east, where the production of the past season was not sufficient for domestic requirements, and in the insurance to the market that there would not be a large surplus production in 1934. These two measures probably added 20 cents per bushel to the price of wheat sold by farmers in the past season, and now leave a supply situation for 1934 that will provide only for domestic requirements and for about a normal carry-over into the 1935 season.

In the case of wheat, as in the case of cotton, devaluation of the dollar contributed to a material increase in dollar income, but the activities of the Adjustment Administration made a considerable addition to the income of the wheat farmer.

The income from wheat marketings in the 1933–4 season is estimated at $286 million, compared with $203 million in 1932, an increase of $83 million from the sale of wheat. This was realized in spite of the fact that the quantity of wheat marketed amounted to only 368 million bushels, as compared with 524 million sold in the previous season. Thus the price advance was sufficient to do much more than offset the reduction in marketings. Benefit payments added $98,600,000, making a total income from wheat for the 1933 season of $385 million, a gain of about $182 million. The activities of the Adjustment Administration probably contributed about $170 million to the increase in the income from wheat, this being added to the contribution of the devaluation of the dollar, which would have only a little more than offset the effect upon income of the great reduction in the quantity marketed. In the forthcoming season farmers will market some of the old wheat carried over from other seasons and the new crop, at prices which will probably return an income about the same as, or perhaps a little larger than, that received from wheat in the past season.

The great Corn Belt of the United States was greatly depressed by the low prices of hogs and other live-stock products. The fact that grain prices fell more rapidly than live-stock prices in the early part of the depression led farmers in all parts of the country into the production of live stock, thus reducing the demand of deficit areas for the products of commercial production. Hog production had reached a high peak in 1932 and was increasing, and the price of hogs had fallen to a very low level.

The Adjustment Administration signed up a million and a half farmers under contract to reduce both the farrowings of pigs and the planting of corn. An effort was made to reduce hog production about 25 per cent. The actual reduction cannot be determined definitely until the end of another year. A survey recently made indicates that the spring pig crop of 1934 was 28 per cent. less than that of the previous season, and that farmers intend to decrease the number of sows bred in the fall of 1934 by 38 per cent. Such reductions will result in materially higher prices for hogs in the near future. In fact, prices are already reflecting this prospect.

In the case of hogs, as in the case of wheat, other measures have contributed to improving the situation. In the fall of 1933, prices had fallen to a very low level under the pressure of heavy marketings. In order to strengthen the market and also to prepare for the imposition of processing taxes, the Government purchased a large number of pigs and slaughtered them, thus reducing the number of hogs to be fed. These pigs were purchased at prices fixed by the Government—prices high enough to induce farmers to sell them, that is, higher than the current market prices for such pigs. The offer for sows failed to bring forth any considerable number of them. Later in the season the Government made large purchases of meat or purchased hogs for slaughter, to provide meat for relief. This was done from time to time, because of the need of the supplies and timed for the purpose of strengthening the market as the processing taxes were increased or as market supplies seemed to be running temporarily excessive. Thus the market for hogs was stabilized through the winter season.

The policy pursued with reference to corn has contributed towards readjusting the live-stock situation for next year. Conditions at the beginning of the 1933–4 corn-marketing season were such as to depress unduly the market price for corn. The Government decided to offer a loan on corn, similar to that on cotton, at a price higher than current market prices in the surplus-producing areas. This had the effect not only of raising the price of corn to some extent, but also of discouraging the feeding of corn to live stock which were selling at very low prices. The slaughter of pigs and the placing of a large quantity of corn under seal for loans tended to conserve the supply for the latter part of the season. This policy has probably saved about 50 to 100 million bushels of corn, to make up in part the deficit on account of the great drought. Not only did this policy conserve corn, but it has tended to slow up and curtail live-stock production.

The financial benefits to farmers from the corn-hog adjustment programme cannot be measured in terms of prices in 1933 compared with 1932. The prices and income from hogs in the past twelve months have not been improved to any significant extent. The benefits to be derived will be realized mostly within the next twelve months. The demand for pork is so elastic that raising the price to the consumer on account of the processing tax tends to curtail consumption. The amount of money that the consumer will expend for meats is determined primarily by the amount of money he receives. As the price to him is increased, he consumes fewer pounds of meat. Since live-stock products are perishable and must be consumed as brought to market, the price the consumer will pay, minus charges for handling, determines the price the producer receives. In the forthcoming season, the reduced supply may bring the farmer a greater net return, as the consumer will continue to pay about the same amount of money for supplies, making higher prices per pound, but the cost of handling the smaller quantities will be less, and consequently the deduction per pound less. Furthermore, the farmer will receive large benefit payments. Taking the two years, together with the benefit payments, there will undoubtedly be some net gain in income; and at the end of the two years the production situation will be readjusted to a profitable basis.

CONCLUSION

Time-limits will not permit a review of the production adjustment operations with reference to tobacco and rice, nor a review of operations under marketing agreements. While the objectives in all cases have been essentially the same, the methods of operation have varied greatly on account of the peculiarities of production, methods of marketing, or of the demand for the product. In all cases many of the actions taken in the past year and planned for the present season are considered to be only emergency measures to be followed by a more permanent programme for maintaining a better balance between industry and agriculture and for keeping production more in line with the demand for the several products at home and abroad.

Any comprehensive national programme for agriculture must also take into account industrial conditions as the domestic demand for many farm products depends largely upon urban purchasing power (Figure 5). The National Recovery Act of June 16, 1933, had as one of its objectives the increase in the consumption of agricultural products. In so far as P.W.A. and N.R.A. have contributed to increasing pay-rolls, they have also contributed something to improvement in farm incomes (see Figure 6).

It was expected that increased farm income would aid industry, and

Indexes of Income of Industrial Workers and Farmers' Cash Income from Crops and Live Stock, 1924 to Date

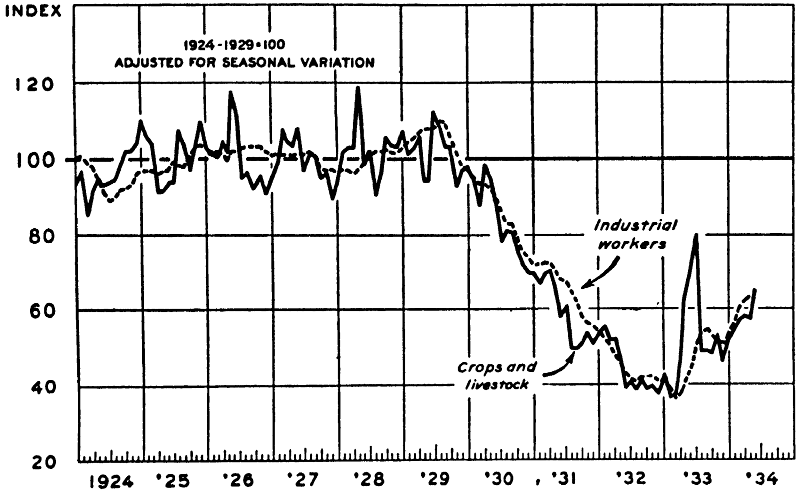

FIGURE 5

Indexes of Factory Employment and Pay-rolls

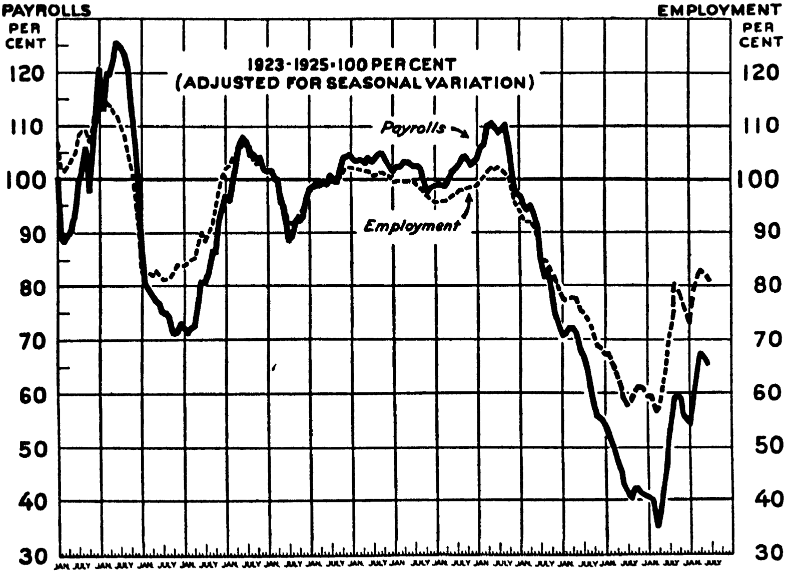

FIGURE 6

Indexes of Income of Industrial Workers and Cash Income from Crops, by Groups, 1924 to Date

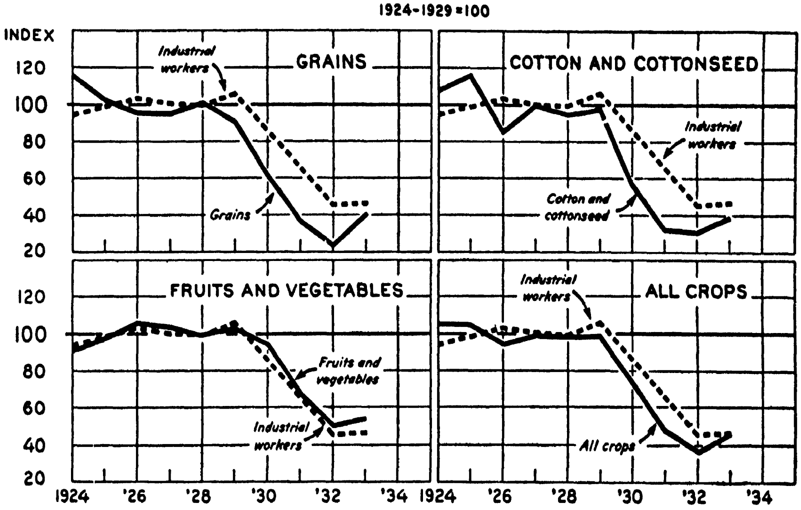

FIGURE 7

Indexes of Income of Industrial Workers and Cash Income from Live Stock and Live-stock Products, by Groups, 1924 to Date

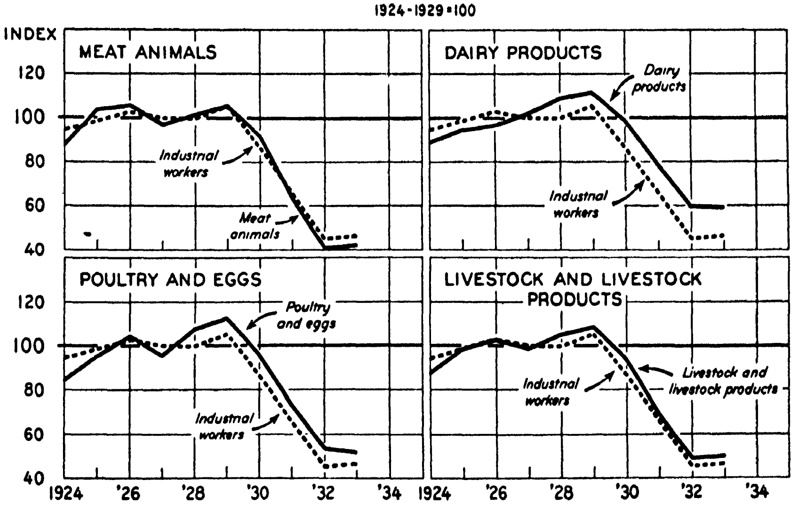

FIGURE 8

that has been realized. It is impossible to trace in each case the effects to their initiating force, but it appears obvious that benefit payments to agriculture, restored credit, the turn in prices, and the industrial relief programmes have all contributed to a material improvement in the purchasing power of urban consumers. This in turn has been an important factor in maintaining the incomes to producers of fruits, vegetables, and live-stock products in recent months far above the level to which they had fallen at the beginning of 1933 (see Figures 7 and 8).

Looking abroad we see several other countries apparently making some progress on the road towards the recovery of 'normal' conditions for agriculture and industry. But many important national readjustments are still to be made. It is our hope that the internal readjustments will prepare the way for the recovery towards 'normal' international trade in agricultural products. Of some products we still have capacity to produce much more than we consume, and we know that many people in foreign countries need and want them. Perhaps we can contribute something towards increasing their purchasing power, and it is our purpose to try to adjust our production to their demands and not to sell them what they do not want.

DISCUSSION

LUDWIG HERRMANN, *Staff Department of the Peasant Leader, Berlin.*

NATIONAL Socialism is not a method, but a philosophy of life (*Weltanschauung*). The agrarian policy of National Socialism does not seek to heal the economic crisis, but to build up afresh, on completely new ideal and material foundations, production, distribution, and consumption. National Socialism had, thereby, to tackle first of all the conception of 'world economy'. The unparalleled expansion of international trade before the War did irreparable harm both at home and abroad to all peoples concerned. Industrial nations, in their fight for world markets, abandoned their own basis of nourishment. Peace between nations was inevitably shaken, as the economic attack on world markets was combined with the defence of the food supply for one's own nation. The only possible outcome of such unstable conditions was naturally war. National Socialism has deliberately turned away from the conception that 'Germany's future lies upon the sea'. In doing so it has put itself into harmony with the conceptions of our best Germans, with those of Johann Gottlieb Fichte and Gustav Ruhland. The individual nation is an absolute and thus also an economic unity. Politics, not economics, have pride of place. What a people cannot bear politically, economics should leave alone.

Little imagination is needed to picture how beautiful it could be if the treasures and possibilities of the world were at the disposal of all. Two hours' work daily would be quite enough, with absolute world-harmony, to provide everybody with the earth's best gifts in abundance. Who would think of growing sour wine in north Europe when the southern sun willingly puts at our disposal, without work, unlimited quantities of the best quality? Ought wheat to be cultivated on the rocky slopes of Switzerland and Scandinavia, when Ukrainian and Canadian soils yield double and triple harvests with far less labour? Or what more ideal industrial countries are there than Germany and Britain, where iron and coal lie cheek by jowl in the bosom of mother earth? A world dictator—and our earthly paradise is achieved!—thus the thoughts of a man ignorant of Nature's eternal laws. He forgets that mankind, like all other beings on this globe, is destined to grow and develop, which is possible only by ceaseless struggle and strife. Only the individual nation possesses a homogeneous economic body, the world should not and cannot.

There is no world economy, only a number of national economies, working together in greater or lesser harmony. The more stable the individual national economies are, the smoother are international relations and commercial exchange.

A shrinkage of world trade must be consciously taken into account. The nation has never had any profit from this unhealthy striving after world power. Of what use are bananas to us if we do not know whether we shall, in all circumstances, have enough bread for our people? If Fate enables us to exchange high quality German work against foreign products for our richer and better nourishment and clothing, we are thankful, otherwise our German soil must give us the rough but certain piece of black bread and the simple linen smock. They are not at all unsuitable to our German character.

In spite of the most intensive cultivation of our German land and soil, and of our cattle farming, we can maintain our people only imperfectly from our own land. Our production has to be so arranged that, in all spheres, we have at least the most necessary daily requirements. It would be foolish to have too much of one product and to be in a completely dependent position with another. As in small things, so in great. Our peasant farms will not be able to resist a crisis until their production is as many-sided as possible, and, first and foremost, covers their own needs. The same applies to the whole nation: the more secure the general position of supplies, the more secure it is against crisis—and is also the more peaceful. This security does not need to be guaranteed by guns.

With this fundamental attitude towards trade between individual states, the national socialist state had inevitably to give to production and distribution of agricultural products a completely different stamp. It is impossible to say that the German economic policy before National Socialism seized power stood absolutely either for international trade or for home trade. There was no definite tendency at all. Every government party tried to get as many advantages as possible for its party adherents, and with the constant change of governments all measures were only patchwork. There prevailed everywhere a wild speculation with the most essential commodities of the nation to the cost of those whose conditions were least flexible, namely the peasants and the poorer classes of consumers. The peasant was accused of being a bad business man who did not understand how to adapt himself to the prevailing market position. Marketing research institutes ought to give him a helping hand. No matter what he did, it was wrong. He displayed a wretched figure at the roulette table. He staked wrongly and the bank took his money. Thus, in recent years, thousands and hundreds of thousands of peasant farms came under the hammer. Only those survived who did not speculate, who kept their plan of cultivation as many-sided as possible, and, above all, secured their own needs first. Only the German peasant's dogged persistence and love for the soil could induce him, with this fool's game, to sow and harvest his crops. A 'liberalistic' race of farmers would have given up long before. Discontent in the farmers' camp, however, had become intolerable and it is certain that a great part of German peasants would have declared a production strike like the negroes in East Africa, described by the economist Ruhland, whom speculation robbed of their well-deserved wages of cotton production.

Not high, but fair and steady prices will enable us to maintain and increase the peasant's joy in production.

The German consumer, however, was also discontented. He could not help seeing how the peasant was being paid for his products at completely inadequate prices, and how he experienced in his own person the bitter loss of the former as a purchaser on the German market, and how, in spite of all that, he had to pay fairly high prices for the peasants' products. The peasant obtained only one-third of the price paid by consumers in the city, and similar conditions prevailed with nearly all products. Bumper harvests affected the consumer just as little as bad ones. Prices were dictated by the stock exchange, not by the bounty of the home soil.

In the tremendous programme of the Leader the national socialistic agrarian policy had the task of securing the feeding of our nation as far as possible from our own soil and, beyond that, with the help of foreign countries, and of giving fair prices. A 'fair price' means one just sufficient for the producer and tolerable for the consumer, and from which the honest and hardworking of the middlemen, distributors, and processing trades find a livelihood. Obviously it could not be left to these groups to determine their own share of the just price. A fair distribution could only be done by a Marketing Association.

The regulation of the market is a true instrument of the Third Reich, as it contributes to national self-sufficiency by its intention to secure the food supply, and to social justice by its price policy. The conception of 'Supply and Demand' must be abandoned. Not a speculative 'produce-exchange made' supply and a similar kind of demand, but only the actual production and the actual need can be the decisive factors for the regulation of the market. Produce exchanges are, to quote Gustav Ruhland, 'Gambling hells whose stakes are bread grain, the food of the people'. In the national socialist state there is no justification for their existence. Needs and the fulfilling of needs are the poles of the regulation of agricultural markets. By Marketing Association we understand the combination of groups participating in one economic process, under a uniform leadership. The individual marketing association possesses a central organization and district sub-associations. Only under uniform leadership and with the co-operation of all groups concerned, can the interests of the whole community be represented. With a sectional cartel the interests of the remaining groups are disregarded, as a recent example has shown.

The economic association of the industry for the utilization of fruits and vegetables is, at present, still a sectional compulsory cartel. The cucumber department fixed quotas for the canning of cucumbers in order to secure the sale at a certain price. This branch of manufacture kept the total quota within comparatively narrow limits in order to be able to dispose of all goods at the fairly high prices fixed. The result was that the raw cucumber market, after the exhaustion of the quota of the canning cucumbers, would have suffered a serious set-back in price, and a certain amount of them would probably have perished; on the other hand, the consumer would have had to pay too high a price in relation to the cucumber harvest. Thus the quota has been extended and the price per tin reduced in order to achieve a higher turnover in the interest of both producers and consumers.

Simple and uniform as the principle of market regulation is, the methods of its execution vary very much. Farm products, on account of their various transport and storage properties, their perishability and so on never permit of one and the same marketing method. But no matter what the product may be, and whatever the form of the compulsory alliance chosen, all groups concerned have to obey head-quarters which have been set up almost everywhere according to the principles of self-government and of leadership. The Marketing Association endeavours to adapt production to requirements and to transfer the goods from producer to consumer by the best and quickest route.

The opposing interests of the various groups, at first fighting against each other, find in the Marketing Association a harmonious combination for the commonweal. No group exists only for its own interests. Each one exists only in combination with others. Special business activity of a single group is of no value; its significance for the community alone is important. 'The commonweal comes before private profit' is especially true of market regulation.

The following three forms have developed for the cleaning up of German home markets for agricultural products:

(*a*) Direct market laws, in which the legislator himself makes ordinances regarding sales, price-fixing, and the like. Grain-market regulation in 1933–4 is a specially good example. The Government instructed the Minister for Food and Agriculture to decree fixed prices for the various economic zones, without creating any new organizations. Here we have the simplest form of agricultural market regulation. It is applied in cases where immediate help is needed. These measures represent supports such as are given to a dilapidated house to prevent its collapse. The real and vital re-organization and reconstruction takes place later.

(*b*) The transfer of responsible administration to the *Reichsnährstand* and the appointment of 'deputies'. As a rule the 'deputy' is an expert who carries out a far reaching market clean-up (particularly of rather special products, e.g. early potatoes, &c.) according to a programme approved by his superior authorities. This 'deputy' has the opportunity in greater degree than the legislator himself of going into matters of detail and taking individual needs into account.

(*c*) The so-called *economic* or *marketing associations*. These associations represent the highest form of economic co-operation. Fully developed, they are ideal instruments of a national economy, healthy and strong in their relations with home and foreign markets. Marketing associations are already in existence, or are being created in the sphere of the milk, eggs, cattle, and also in the corn industries. Further products are also being taken in hand. The market is organized for self-administration under a responsible leader, and thus is an economic counterpart of a political state which follows a leader.

In addition the import of foreign products to the German market has naturally to be regulated. By the erection of government offices for the most important commodities, 'locks' are built in between the international and the German markets which, with the help of the import permit procedure and by differential levies, secure German markets as regards quantities and prices. In addition to this protection of the home market it has also been possible to make price concessions to the imports of nations with whom Germany has good economic relations so that countries exporting to Germany obtain considerably higher prices than, for instance, on the English market.

The separation, however, of German food-markets from the world market has had still another result; the change from the pronounced private economy of previous times to national economy has brought us nearer to the countries with which common economic interests bind us by nature. It is no longer the speculative striving after profit of the individual business man, but the state itself, which determines our foreign sources of supplies, whilst protecting the interests of the whole nation. The development of butter imports, for example, throws a good deal of light on the situation; although the total German imports, which in 1932–3 were 69,591 tons, were reduced in 1933–4 to 54,630 tons, Denmark was able to increase her exports to Germany from 13,243 tons to 14,861 tons and the Netherlands actually from 8,905 tons to 12,564 tons. The trend of German trade policy has now been definitely fixed. It is only by the organization of her home markets that Germany has become a reliable customer for foreign commodities. National Socialism can claim to have solved the problem unsolved since trade between nations began, viz. 'Industrial Exports and Agrarian Protection'. There must develop between individual countries a sort of interdependent economic community life. It is not world-embracing trade relations of a few great international capitalists which secure freedom and make nations happy, but the development of the economic relations as laid down by Nature.

Thus, in every direction, the market regulation, in the national-socialist sense, has been given safe and solid foundations. Little wonder that it has been able to achieve monumental successes in twelve months. The problem 'Agrarian Protection and Industrial Exports' has been solved in harmony with foreign countries, and so also the problems connected with 'Producer and Consumer Interests' at home. The year 1933 might frequently have given the impression that market regulation existed only for the benefit of the producer. As consumers' prices, on account of the weak purchasing-power of the great mass of the people, could not be increased or only to a small degree, the excessive profits of the distributive and processing trades have received proper adjustment. The channels of distribution, in parts ridiculous, were shortened and cheapened, and the risk considerably reduced by the steadiness of prices. The hard-working processor and the middleman have thus obtained a secure, if modest, existence, while speculation in food has, at the same time, been rendered impossible. Greedy hands grasping the people's bread for self-enrichment have no place in the New Germany.

We want no one but workers for reconstruction—no parasites! Only in this way is it possible to give fair wages again to the producers without a new and marked burden on the consumers. In spite of the continuous fall in world prices it has been possible to raise the income of German agriculture from 6·5 milliard marks in the budget year 1932–3 to 7·2 milliard marks in the budget year 1933–4. To this must be added savings effected by reductions in interest, taxes, and the like.

Market regulations in the year 1934, with its generally poor harvests, have been mainly a protection to consumers. With us, in Germany, it is not speculation which fixes the price for bread, but the Marketing Association for Grain, with the consent of the State. Every grain of wheat from last year's record harvest has been carefully saved, and is now being used to supplement requirements. The same is true of other branches of agriculture. Our egg-stocks are double those of previous years.

The greatest stress is laid on steadiness in price development. It would be foolish and impossible to fix absolutely uniform prices for the whole year, except for bread and for milk for liquid consumption. Steady price-development with as few fluctuations as possible is, on the other hand, a great blessing for both producer and consumer. It stimulates production owing to its reliability; it helps the consumer as he knows exactly how much he will have to spend, but it deals a death-blow to speculators. Market control and price regulation are not a mere dictatorial decree, devoid of all economic wisdom and only to be maintained by force. They are supported by a corresponding influence on the market. In times of bumper harvests surpluses are withdrawn from the market to be put into circulation again in times of shortage. In the short time since its seizure of power, National Socialism has naturally not been able to do away with all former abuses. Various groups are constantly trying to kick against the pricks. In the egg-market, for instance, the traders, in times of plenty, tried to share the structure of market-regulation by living from hand to mouth for weeks at a time, whereas now, when supplies are getting shorter and prices higher, the middlemen are storing eggs. We have arrived at quite different conceptions of economic morals. Ogden Armour, in a case cited by Ruhland, bought up for Christmas all available stocks of apples and turkeys, and sold them again at very high prices. Such lucky speculation was honoured and admired. Who would have dared and who, in all 'liberalistic' countries even to-day, would dare to do him the least harm? But such adventurers and speculators with the food of the people are regarded in Germany as dangerous criminals, and will be hanged. Which justice is the more cruel: To allow exploitation and starvation of an honest, honourable nation or to hang a few rogues on the gallows? Do not ask the law codes; ask instead the healthy sentiments of your nation. In Germany Socialism and Justice have become one conception.

The difference between the lowest and highest prices of eggs in the following years was: 1929, 68·2 per cent.; 1930, 84·5 per cent.; 1931, 77·2 per cent.; 1932, 126·8 per cent.; 1933, 81·8 per cent.; and in 1934 will be at the utmost 50 per cent.

Market regulation, of course, presupposes an absolutely strong state leadership; it is in every way a child of national socialism, and without this would be both unthinkable and impracticable. It is noteworthy that Italy, a country with a similarly authoritative state leadership, is withdrawing from its former sectional national syndicates, and is setting up corporations similar to our marketing associations. Signs of similar economic structures are to be found in the U.S.A. in the form of the N.R.A.; in Switzerland in the organization of peasant producers; and in England in the milk and bacon market regulation.

Market regulation stops short of interference with genuine private initiative, without which an economic apparatus becomes lethargic and inflexible. The heavier the burdens and the more modest the possibilities of existence for a nation, the more the innately valuable forces of national and economic life must be allowed to develop. Private initiative should be limited only when it begins to threaten the common welfare, i.e. where it changes from a healthy striving into a crime against the nation. For this reason marketing associations do not themselves engage in trade. They only supervise.

Market regulation also takes care not to limit and burden business by over-organization. Only very few people control the market in the whole of Germany. When matter is added to matter, as in the case of manuring, the output is increased. When physical labour is added to matter, the result is still better, but the addition of controlling intellect to matter and labour, i.e. organization, results in the highest achievement. The first dose has the most fruitful results and pays best. Thus it was possible by modest measures to save for the mass of the people, namely, the peasants and the consumers of agricultural products, many hundred millions of marks and, still more important, to secure the food of the people. The results of market regulation are tremendous.

Methods of influencing the market vary. Commodities that can be stored, such as grain and eggs, are the easiest to control, and their yields are also more constant. The market regulation of the more perishable kinds of fruits and vegetables is much more varied. Regulation of hardy cabbage, the hardier fruits, onions, and potatoes is obtained through the producers not being allowed to offer quantities in excess of demand. These can easily stand a postponement of harvesting for days or even for weeks. With preserving vegetables, peas, beans, asparagus, tomatoes, cucumbers, white cabbage, the conclusion of cultivation agreements between producers and manufacturers is actively promoted so as to secure the market for these products. With the rapidly perishable fresh vegetables for which stocks cannot be kept, such as lettuces, early vegetables, radishes, and so on, precise grading instructions are issued. With plentiful harvests, only the best kinds are released for the market, so that, in contrast with former days, poor qualities may not spoil the prices while good qualities perish in the producers' hands. With less good harvests, second and third qualities are also declared marketable. This kind of market regulation is also applied to other products. In order to avoid losses and overloading of the market of all kinds of soft fruits, arrangements are made with manufacturers for the production of half-finished products which will keep.

Contrary to many of the efforts for the saving of the world agricultural markets, German market regulation deliberately avoids the fixing of quotas for primary production.

The formation of steady prices fixed in the interests of the whole nation will indicate to the peasant which products he should cultivate and which not. He will himself bear the responsibility for his production. He knows his own land best. If he makes a mistake, his products cannot be bought, or only at unsatisfactory prices. There are so many imponderable and incalculable factors in the farmer's production that it cannot be regulated by any calculation however exact. This is a good thing. Mankind is thus always reminded of its inadequacy.

The German farmer's freedom in cultivating his soil fundamentally differs from collective farming. The market organization appeals to the common sense of the farmers, and thus achieves by voluntary action what other economic structures fail to achieve by force. The enormous increase of the cultivation of oil seeds and textile plants is positive proof of the peasant's understanding of, and his trust in, the measures of his government. But we have still a long way to go. If foreign countries see our point of view it will be to our mutual interest. We shall gladly come to an agreement with those who enable us to exchange high-quality German goods with their foodstuffs for the better maintenance of our people. Those, however, not inclined to understand us will suffer direct disadvantages through the termination of our mutual exchange of goods, and they should also know that the German nation will unswervingly pursue its path of self-preservation under Adolf Hitler. 'Everything that does not kill us helps to make us stronger.' Our Leader's words are still our motto: 'National economy does not save a nation, but a nation must save its national economy.'

GERMAN EXPERIENCE OF WAR FOOD ADMINISTRATION

FREIHERR VON FALKENHAUSEN

Staatsekretär a.D. Potsdam

THE question of the limits of planning was heard in the papers and reports read to-day by the representatives of several countries. The question sounded urgent and full of anxiety. In Germany we have an example which shows up these limits especially clearly, because they clashed with hard reality.

The organization of food supplies during the war is a classic example of a forcibly controlled, if not planned, economy. Allow me to say a word about the experiences we gained—a word of personal experience. I was called upon—I might almost say condemned —to work on these thankless problems, at first as manager of a provincial organization, afterwards in the central administration. I must own that I was often in opposition to the ruling opinions.

I will try to give an unbiased picture of the organization of food supplies during the war. I do not draw conclusions and analogies to the present situation. They will, I believe, become self-apparent. But one thing must be kept in mind: A controlled economy is not the same as a planned economy. We shall see that it can be very much the opposite. But a planned economy is a controlled economy in so far as it implies in its very idea the submission of the will of the individual to the will of the whole. If the experience of a controlled economy as such is consequently valid for a planned economy, it would nevertheless be a fundamental error to apply the experience made in war-time directly to peace conditions. The aims and the requirements of war-time food administration were other than those of measures against the present crisis. The market for agricultural products which presents the essential problem in the agricultural crisis was then only too well assured. The question was how to manage with an insufficient quantity of food supplies. The war-time food administration had as its main task the distribution, division, and apportionment of what was available. It had to see that every one received daily as nearly an equal share as possible of the total supply at prices within his means.

How great the quantity was, which was lacking and had to be done without, is made clear by the figures for pre-war imports.

Germany imported on an average during the last five years prior to the war—only to mention the most important foods:

Grain for bread (including flour)	1·23 million tons.
Grain for fodder (including barley, oat, maize meal)	4·03 million tons.
Plant and animal fats	0·53 and 0·27, together 0·80 million tons.

If we take a correct estimate of the home harvests—which, as is known, were always over-estimated by 15 per cent.—9 per cent. of the total supply of grain for food, 30 per cent. of grain for fodder, more than 40 per cent. of fats (more than three-quarters of which served as food) were imported from abroad.

This importation was more and more, and finally as good as completely, cut off by the blockade. The home production decreased also as a result of war conditions. Losses through enemy invasion remained within bearable limits and were fully compensated for by supplies from occupied enemy territories, even if these for obvious reasons did not come up to expectations. On the other hand, agriculture suffered severely from the lack of artificial manures—the import of which was replaced only to a very small degree by the home nitrogen and phosphate products—and above all, as a result of the conscription of men and horses for war-service, in spite of help from prisoners-of-war, from the lack of draught-animals, workers, and experienced farm managers. The control of the national economy also injured agricultural production considerably: by the mere removal of freedom of action itself, by seizure and distraint measures, even more by actual intervention in the means of production, and worst of all by the withdrawal of cattle-fodder and by the slaughtering of cattle for meat supplies, which meant a severe decline in milk, manure, and tractive power.

In the course of the war from 1914 to 1918 there was a decline in:

Harvests—of rye from 20·82 to 16·00 million cwt.
of wheat from 7·94 to 4·92 million cwt.
of potatoes from 91·14 to 58·94 million cwt.
Live stock—cattle from 21·83 to 17·65 millions.
pigs from 25·34 to 10·27 millions.

If the increased demands for supplies for the army and the consumption of sugar and alcohol by the armaments industry are also taken into account, there is evidence of a grave decline in foodstuffs for the population.

Neither the general public nor the experts were conscious of the seriousness of this situation at the beginning of the war; nor were the responsible authorities very conscious of its difficulty. Officials had indeed long been appointed to deal with the food problem in the case of a possible war and had prepared measures to offset an expected shortage of food supplies. But the extent of this shortage was not realized. The home production was over-estimated, as a result of the error in our statistics which I have already mentioned, and it was thought that we had abundant supplies, and no one was willing to believe in the possibility of our imports being completely cut off. Above all, there was the dogma that the modern war cannot be of long duration. At first, then, no one thought of the public regulation of food supplies. Also, when that proved necessary, it was only with hesitation and reluctance and then step by step that it was decided under the pressure of necessity and of public opinion that the state should intervene.

In the first months the government confined itself to public warnings of thrift and moderation, and to suggestions for the spreading-out of food supplies and for substitutes. In addition to this the local authorities began to provide for supplies of grain for bread. Delivery-contracts were signed between the big towns and the country co-operative societies.

In the Potsdam area, for example, to which about half of Greater Berlin still belonged then, regular deliveries were arranged from certain country districts to the separate suburban districts. The Berlin suburbs were in this way well provided with grain for bread during the first winter of the war. The same deliveries were also being assured to them for the future, when the organization was destroyed through the centralization of the grain market in the Imperial Grain Office. As *Regierungspräsident* (President of the Council) of Potsdam, I resisted strongly but in vain the destruction of an arrangement which had proved so sound, in that I pointed out the advantages of such local delivery connexions and the possibility of building up the supply system for the whole Empire on them. Also later, similar proposals for the decentralization of the grain market made by agricultural interests had no success, until after the war a return was made to the system of grain-delivery contracts in the building up of a controlled economy.

In the autumn of the first year of the war, when the disturbances in the food market, especially rises in prices, began to become critical, it was at first attempted to offset them by fixing a maximum limit for prices, which was applied—in accordance with an Emergency Powers Act passed at the beginning of the war—at first to the individual local societies according to need and discretion, and then by the Maximum Price Decree of the Federal Council of October 25, 1914, to the whole Empire. For a short time the regulation of prices seemed to have its effect. But very soon it became clear, and this was continuously substantiated in the experience of the whole war-time economy, that intervention in price-fixation drove commodities from the market. It necessitated further interventions, namely, rationing, and for its execution state management and distribution of the available supplies.

A beginning was made with the grain for bread. By a decree of January 25, 1915, bread cards were introduced and an Imperial Grain Office set up. But by reason of the possibility of substituting different foods and fodders for one another and of the reciprocal effects of their markets on one another, such a regulation could not be limited to one foodstuff, without making pressure and price disturbances worse in the markets of the others. After a short time fodder-grains had also to be taken under control. Gradually all foodstuffs were brought under similar control. Towards the end of the war, everything eatable for man and beast, with unimportant exceptions, was controlled by about forty boards and societies, under the general direction of the War Food Office. Each German received only those things to eat—when he received them at all—which were specified on his food-card, in so far as he did not benefit by illicit trading, which dangerously increased in equal measure to the suppression of free trading through control of the national economy.

That is the picture of the German war-time food market brought down to the simplest formula of a common denominator. The seizure and distribution of all foodstuffs in any way important exhausts it. What happened alongside of it was either a means for this purpose, or of inferior significance. In the first place come the continuous prohibitions concerning the feeding of animals, involving almost the starvation of draught-cattle; in the second place the measures for the spreading-out of supplies (directions for grinding flour and for baking, the order for the use of potato bread, which was soon recalled, the appointment of days when no meat was to be eaten), the regulation of the trade in substitute foods, measures against profiteers, and the keeping back of supplies and secret trading, the arrangement of communal meals, special assignments for people with heavy work, &c. There were few attempts—and this was a constant complaint of farmers—to affect production, to extend it, and to give it a direction. The extension of the area of cultivation soon proved to be inadvisable, because man-power and manure-supplies did not even suffice for the proper care of the land already under cultivation. The growth of special produce could also only be extended at the cost of other produce. Nevertheless, in view of the especially serious lack of fats, the cultivation of oil-seeds (rape and flax—the latter also necessary for weaving), which up till the war had heavily declined in Germany, was encouraged by the guarantee of advantageous prices, by assignment of artificial manures, and by an assurance of oil and oil-cake supplies in return, with the successful result that the area of cultivation and the harvests increased many times over. It was thought at first that the production of sugar, on the other hand, which had been in peace-time to the extent of 40 per cent. for export, ought to be limited in favour of grain-cultivation. In the spring of 1915 the area for beet-sowing was ordered to be limited by 25 per cent.—in the occupied territories it was forbidden entirely—and at the same time the available sugar supplies were given for fodder after being suitably denatured. Soon after, as a result of the far greater decline in cultivation and yields, and when the requirements of the munition factories came as an additional demand, the surplus turned into a severe shortage.

The cultivation of vegetables was furthered by the large towns by means of delivery-contracts coupled with a guarantee of the manure arising from their refuse. Later, at the instigation of the Prussian Ministry of Agriculture, contracts for fattening cattle were made with the agricultural co-operative societies in return for the assignment of fodder-stuffs. These delivery connexions between town and country, which had been attempted and prepared for already under peace conditions, worked advantageously, but in the general need they were only a drop in the ocean.

The decreed limitation of pig stocks, the so-called *Schweinemord* (pig-murder), in the first winter of the war is a chapter in itself. The physiologists had calculated that the meat and the fat of pigs ready for slaughter contain fewer calories than do the potatoes and grain required for their fattening. They taught that it would be more economic to devote these foodstuffs directly to human nourishment rather than via the pig's stomach. Thus the limitation and indeed the cessation of pig-breeding was passionately demanded by the public, and it was arraigned as a waste of foodstuffs. Those politicians who busied themselves with dietetics forgot that pigs feed for the most part on refuse and other stuffs which cannot be used otherwise. Nevertheless it was already realized in peace-time that the many and large piggeries, which were run on an industrial basis in the hinterland of the North Sea ports with imported barley, could not be kept up in time of war. The cattle census in the summer of 1914 had shown a stock of pigs greater than ever before, and 3½ millions more than in the previous year. When, further, the grain stocks were surveyed on December 1, 1914, and shown to be unsatisfactory, it was impossible not to be alarmed, lest the fattening of all these pigs, at that time especially profitable, should make too great inroads upon the potato and grain stocks and endanger the spring supplies. This anxiety and the general agitation caused the government to enforce a certain diminution of pig stocks. At the beginning of 1915 the larger agricultural co-operative societies were required to lay in stores of preserved meats and received for this purpose the power to expropriate pigs. After the unfavourable survey of potato stocks of March 15, 1915, this compulsory slaughtering was extended till April 15. Up till that date pig stocks were diminished by 9 millions, or 35 per cent. With the young pigs reckoned in, 13 to 14 millions had to be slaughtered, 1½ to 2 millions more than in other winters. This extra number consisted for the most part naturally of animals not ready for slaughter, whose meat proved largely unsuitable for the production of preserved goods. Considerable quantities are said to have been spoiled. In any case much meat was wasted which later was wanted. And when the potato-pits were opened, this additional slaughter proved to have been unnecessary, for there was until the next harvest a surplus rather than a shortage.

The method of control in the case of grain, the most important of the cultivated foodstuffs, was not only the first to be developed but was the most perfected and proportionately the most successful. The grain industry in Prussia was already in November 1914 prepared for this, by the formation of the War Grain Company, which as a public utility company with state participation had the task of buying rye in the open market and of storing it up to assure the public of food during the next spring. When, then, at the beginning of 1915, public control was decided upon, this company, which meanwhile had built up in the country an organization for purchasing, storing, and grinding, was able to take over as the business department of the Imperial Grain Office all the latter's business functions. It was extended, but retained its character as a mixed economic undertaking. The administrative department connected with it by personal union, an authority in accordance with public law, had the task of carrying out the regulations decreed especially for the purchase of grain from the producer.

The co-operative societies were organs for this purpose, and the whole harvest was regarded as sequestrated in their favour. Everything which exceeded the needs of the producer himself—which were scantily measured, though a little better than for other consumers—had to be delivered up to the co-operative societies on demand.

Each of these retained as a rule the share due to the inhabitants of its district, for control and distribution by itself. The remainder had to be given up to any society needing it on instruction from the Imperial Grain Office, and this society distributed in the same manner to each consumer, via miller and baker, the share due to him according to his bread-card. The mills were confined to working for fixed payments. The baker had to show the bread-card slips as a proof of the use of flour in accordance with the regulations, in order to receive new flour. Thus the ring was complete.

If one is to appreciate the greatness of an undertaking, such as had never before been attempted, and its extremely complicated conditions, it ought to be recognized that it was in all essentials carried out according to plan. The provision of bread was carried out almost everywhere throughout the whole war without any disturbance worthy of mention. The daily ration, which at the beginning was already scantily enough measured at 225 gr. (about 7 oz.), had indeed to be reduced soon to 200 gr. (about 6½ oz.), and later at times to 160 gr. (about 5 oz.), the monthly ration of the producer from 9 kg. (about 19 lb.) to 6½ kg. (about 14 lb.). At the same time the delivery of supplies by the farmers was demanded in greater quantities than could be subtracted from their own needs without serious harm. With the regulation quantity left to them—for example, 1½ kg. (about 3 lb.) oats per horse per day—the draught-animals could hardly be kept alive, much less in a strong condition. In addition the farm economy was severely disturbed by sequestration, supervision, and embargo measures. This supervision was intensified year by year under the pressure of necessity and of public opinion, which did not tire of accusing the farmer of keeping back supplies and which demanded continuously and heatedly complete seizure of crops. Finally, it was attempted to take grain direct from the threshing-machine after accelerated threshing. It was all in vain. The seized harvests declined in the last year of the war by 1·37 million tons of grain for bread and by almost 3 million tons of grain for fodder, that is, by 14·2 and 36·4 per cent., a decline which cannot be completely explained by the smaller yield of the last war-harvest. Producers, especially small peasants whose farms could not be efficiently controlled, illicit traders, and consumers resisted with increasing lack of scruple and growing success the government control of the economy.

The grain industry was controlled on the model of the other food industries, though its peculiar character imposed many modifications. Perishable commodities, such as vegetables, fruit, and potatoes, could hardly be so systematically appropriated and distributed as cereals. Still less was it possible in the case of cattle for slaughter. Here it was not a question of distribution of a regularly occurring harvest; invasions had to be made on stocks which at the same time had to provide work, manure, milk, and young. For this a more elastic organization was necessary. For the appropriation of cattle for slaughter, cattle-trading societies were formed with the participation of the producer. The attempt was made to secure the provision of vegetables and fruit for preserving and jam-making factories by delivery-contracts. Fresh vegetables and fruit could be obtained almost only through illicit trading. The provision of meat, in spite of severe invasions upon cattle stocks, was by no means sufficient. Already in the autumn of 1916, when unified meat-cards for the whole Empire were introduced, only 250 gr. (about 8 oz.) could be granted per person per week. Later the ration, which was graduated according to the size of the locality, sank as low as 50 gr. (about 1¾ oz.) a week, and finally a completely meatless week was introduced each month. The weekly fat ration in 1916–18 was on an average only 60 to 70 gr. (about 2 to 2½ oz.); during this period milk was received only by children, invalids, and expectant mothers.

Unexpected difficulties arose in the task of covering the demand for eating-potatoes. In peace-time only a proportionately small fraction of the potato harvest was necessary for human consumption. The greater part was used as animal fodder, and the remainder was more than adequate for the needs of manufacturing trades. But in war-time potatoes had to be used in substitution for all sorts of foodstuffs and fodder materials which were short and therefore as the yield declined the supply also became short. The third year of the war especially, after a temporary surplus, the 'potato flood' of the early summer, brought as a result of the bad harvest and a long winter's frost such need that turnips had to be used in substitution. The potato harvest was therefore commandeered, and managed from a central office by way of compulsory assessment, in that this central office gave to those districts possessing a surplus the task of making deliveries over to other districts which had reported to it their need for additional supplies. Management was made extraordinarily difficult by reason of the perishableness of the produce. It had to be left stacked at the producer's during the winter, could not be unstacked or transported in frosty weather, and suffered in any case considerable loss through rotting, the extent of which could not be calculated in advance. In order to have an absolute guarantee of spring requirements in spite of this uncertainty, even the use of potatoes for fodder, despite its being the most indispensable fodder material, was limited and, from 1916 onwards, with the exception of spoilt or inferior produce, entirely forbidden. As a matter of fact there were potatoes left over from the worst of the war-harvests for fodder purposes and used as such, otherwise a general dying-off of cattle would have taken place. The only effect of the fodder prohibition was to force the farmer into opposition to the official regulations and to conceal his stocks, and in this way prejudiced the very delivery of eating-potatoes, which it was to secure. In order to remedy this disadvantageous state of affairs and to use the interest of the producer as a lever for speedy and complete delivery, I made the suggestion in 1917 that after the individual farmer and also all the co-operative societies with surpluses had made the autumn deliveries required of them and had made sure of their share of the spring assessment, in addition to a good reserve supply, the remainder should be left to them to dispose of at will. This plan, worked out in all detail and complete with figures, was recognized on all sides as feasible and expedient. In spite of that, the head of the city of Berlin brought its downfall with the remark that the opinion of the city population would not endure the removal of the fodder prohibition.

I have tried to present to you in this compressed survey as objective a picture as possible of the system of war-time food control. But the fact cannot be concealed that I regarded its development as unfortunate and struggled against many measures on account of their harmful effect on agricultural production. And I must resist all the more decisively the malicious criticism made of it, which arose from the desperation of the starving inhabitants of the cities and of the tormented farmers, led astray by the well-known tendency to look for the scapegoat among one's own governmental authorities rather than among enemies outside, and which was poisoned by the necessity for agitation felt by the parties hostile to the government. When all the acumen, the organizing ability, the enduring energy, which were devoted to this work, had so little success, then it was chiefly a matter of fate and not of fault. No angel from heaven could have given the German nation enough to eat from what was available, nor have increased production, nor maintained its level.

Many losses might have been avoided, especially if the system had been better planned. As I have shown, it developed as a chain of improvisations and expedients. Decrees following one upon another in close succession, the one modifying the other, putting it out of force, thwarting its effect, drove agricultural production, which needs nothing so much as steady progress, now in this direction, now in that. The maximum prices above all, fixed one after another and not in the right proportion to one another, but each according to the needs of the moment of its introduction, taking into consideration the market price of the moment, forcedly misled it into cultivating one crop one day and another the next. Help was only given by the adjustment of prices made by the War Grain Office, though it did not have any remarkable success. There is also ground for thought that precisely those measures which were worked out according to plan and were theoretically most satisfactory were those which above all failed. The compulsory slaughter of swine, the denaturing of sugar for cattle-fodder, the limitation of beet-cultivation, the potato surplus in the spring of 1916, are examples which give warning of how economic development which cannot be foreseen leads the most careful calculations of the best experts *ad absurdum*. In view of these experiences it may be permissible to doubt if the Economic Mobilization, led by the 'Economic General Staff', which was so frequently demanded and missed, would have had more success, or whether it would not have led us into even greater mistakes. Those who have experienced how often direct intervention by the state puts the delicate working of the economic system out of order will not reproach the government that it attempted to avoid such intervention for as long as possible. What caused it to hesitate was not liberal doctrinairism but much more the well-founded anxiety of making mistakes and causing unwished-for secondary effects.

It is more difficult to justify its all-too-great dependence on public opinion, on the opinion of the consuming masses. This opinion, as was openly stated, was more important to the chief officials than that of the suffering farmers—on whose pleasure in work the success of production is finally dependent. The influence of this mass opinion has had to be mentioned frequently in the course of this report, and how it stood in opposition to the requirements of economic expediency. The provision of food supplies could doubtlessly have been arranged for and carried out with far less friction, if one had not been so anxiously mindful—and finally without any success—to prevent the producer and the well-to-do from providing themselves with extra food. One was indeed conscious that this was in many cases possible without any disadvantage to the general community. But it is a less important point that all have enough to eat, said one of the chief men, than that no one has more to eat than the others. Consideration had indeed to be given to the opinion of a people which was struggling for its life. But when a commodity, such as goose-meat, was consciously driven from the market by setting a maximum price merely in order to avoid the 'provocating' effect of offers at fancy prices, the only effect was to encourage illicit trading. When, above all, merely to satisfy the prejudices of the big cities, the prohibition of the use of potatoes for fodder was maintained, when it was actually pointless, provision for those people was endangered, as I have shown, to whose opinion a surrender was made; quite apart from the situation, intolerable for the authority of the state, in which the farmer only had the choice either of acting contrary to the law or of letting his farm go to ruin.

Over-centralization increased the disadvantageous consequences of the state control. At the very beginning the possibility of a decentralization of the grain industry was pointed out and based on the favourable experience which I had had in the Potsdam area with the local co-operation between societies needing stocks and those delivering them, before the foundation of the Imperial Grain Office, and it was also urged that the grain industry should be built up, not on the principle of central control, but on such local delivery connexions. It can hardly be doubted that substantial difficulties and disadvantages would have been avoided in this way. In any case an immense and unwieldy governmental apparatus would have been avoided. The organization would have been simpler and the method of obtaining supplies more elastic. In the smaller areas the natural trade relations, which had grown up to suit the locality with a guarantee of reliability and long experience, could have been taken advantage of at the expense of illicit trading, that most pernicious product of the war-time economy. The spoiling of supplies, and the unnecessary movements now in this direction, now in that, might more easily have been avoided. Above all, it would have been possible with such a loose organization to pay more consideration to the needs of agriculture. It would have been easier to make the producers themselves interested in punctual deliveries of supplies by granting them certain facilities, instead of systematically destroying their goodwill by the exclusive application of measures of compulsion and threats of penalties—which was indeed a fundamental mistake of the system. Near connexions locally between producer and consumer would have generally lessened the mutual bitterness which so disastrously coloured public opinion during the war. The malicious ill-will between the naturally different parts of the Empire, which so vexatiously offered support to particularism, could not have developed.

In this way some of the worst difficulties might well have been alleviated. In the frame of state control the most serious misfortunes were not to be avoided. Illicit trading and the damage to production are inevitable consequences of the system.

It paralyses the will to produce by the limitation of freedom of action as such, and by the imposition of maximum prices and compulsory deliveries, which take away from the producer the possibility of disposing of his goods at his own discretion. Also such disturbing interventions in the work of the farm itself, such as sequestrations, embargoes, prohibition of the use of certain goods, can scarcely be avoided if the purpose of the control is to be assured, and this brings with it also the necessity of applying the axe to the root of production. The task of guaranteeing the consumer his share of foodstuffs implies the impossibility of allowing rations to decline below the subsistence-level or prices to rise beyond the means of the general public. From this necessarily follows, even with the most careful planning, the inclination to fix prices at unremunerative levels and, in case of shortage, in order to cover temporary need, to make invasions upon stocks which are required for the continuation of production. Thus the disturbances in production, mentioned at the beginning and touched upon again and again in the course of my report, were the necessary consequences of state control as such. It was only in accordance with its essential character that the fodder supplies left to the farmer should be too sparingly measured, and that the economy should go to ruin through the strict following of the regulations. I once caused serious offence when I compared the farmers who, conscious of their responsibility, defied threats of punishment in order to keep their farms productive, with General Yorck, who saved his country at Tauroggen by an action which legally amounted to mutiny. With great display of moral indignation the public insisted on the selfishness of the farmers and their lack of community spirit. It would have been more right to accuse the economic system, which brought them into a conflict of duties and could not make personal interest serviceable to the general interest. The opposition between these two interests ceases, when it is a question of keeping the farm running, for this is in the interest of the whole as well as in that of the individual.

A consequence of state control, which cannot be defended but which is equally inevitable, was the ravaging damage done by illicit trading. It can be clearly followed how this pernicious growth developed ever more fully, the more state control was extended and the more strictly it was administered. No penalty and no warning could prevent ever-widening circles of the population in their need from drawing supplies ever more unhesitatingly from this obscure source. In this way state control dissolved itself, in that it furthered the disparities in the provision of supplies by its breeding of illicit trading, disparities which it strove at all costs to avoid. It is possible that the disparities, which occurred at the expense of public morality and of the authority of the state, were far more difficult to bear than the natural ones would have been.

The recognition that state control is necessarily detrimental to production and must lead to illicit trading has brought serious observers to the conclusion that Germany would have done better if it had resisted its introduction. I should like here to point to the distinguished report made by Dr. Schiele-Naumburg in which he seeks to combat the view that *laissez-faire* in war-time must have led to cut-throat competition. I do not venture to assert that we could have managed without some state control. But if it was necessary, it was a necessary evil. If its form and application had been planned strictly in accordance with realities and made elastic and as decentralized as possible, its havoc could have been less. But even the most perfect organization and the most careful working would not have been able to banish the detriment to production nor the danger of illicit trading. This was the experience of war-time food administration in Germany.

SECTION II

SOCIAL AND ECONOMIC ASPECTS OF FARM ORGANIZATION

THE FORMATION OF NEW SMALL HOLDINGS IN ITALY AFTER THE WAR

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SPEAKING to this gathering of experts I can dispense with a long introduction showing the importance of the subject I have to deal with to-day. All of us know the extraordinary political, economic, and social significance attached to the distribution of landed property in all countries. We know that the soil is one of the most eagerly desired material goods. It is a monopoly, and its quantity can only be increased with heavy exertion and expense by recovering land from the sea or from fens, marshes, and wilderness. Those who possess it are not inclined to give it up, and men seem to be ready for every sacrifice in order to get it. Some use it as the foundation of working independence while to others it is a source of income or a means to increase their political and social reputation.

The struggle for land fills a great part of the history of mankind. The past was full of it, it dominates our present time and it will continue to do so in days to come. Political or economic weapons, more often both of them simultaneously, are used in this struggle.

Already before the war various governments interfered with the distribution of landed property in favour of small holders who were considered to be one of the staunchest supporters of a healthy social order. It was particularly the country whose hospitality we enjoy here, which took a leading part in this movement by its ideal legislation on home colonization, so splendidly described by Max Sering, at that time a young professor. And after the war it has imparted a new impulse to this movement by its Settling Law of 1919, which was decidedly influenced by Geheimrat Professor Sering, now no longer young in years but still full of a youthful spirit. It is, therefore, with special pleasure that I express to-day, with a sense of deepest gratitude, my greetings and sincere wishes to our esteemed Vice-President, once, thirty-four years ago, my beloved teacher.

I should like to mention especially amongst the other countries, Russia, where the fight between the individual and the collective order of economic life has not yet been finished, and also those countries on the western frontier of Russia which have carried through more or less radical agrarian reforms since the War. These reforms served the various economic, political, and social tendencies and resulted in a heavy burden on the finances of these countries.

The Italian position in these problems is different, as the struggle for land has been fought essentially, if not exclusively, with economic weapons, and the state interfered only in a very moderate and cautious manner. In fact, it is only during the last six years, since the legislation on the *Bonifica Integrale*—not to be dealt with here—that Italy has got an efficient legal equipment for systematic activities in the field of home-colonization. Since then she has certainly made use of it with great success, especially in order to increase the number of small holdings. But in the decade since the war she has succeeded, by entirely economic means, in a redistribution of landed property, which I venture to call quite exceptional. In this period one million hectares of good cultivated land at a cost price of at least 5 milliard lire have been transferred from *bourgeois* big, medium, or small property to small farmers, without much co-operation of the state.

This admirable process quickly attracted the attention of science and of the government. The National Institute for Agriculture (*Istituto Nazionale di Economia Agraria*) which closely resembles the German Institute governed by Geheimrat Sering, and which serves the Italian Government as an official organ for scientific agricultural research, has followed the suggestion of its President, the Under-Secretary of State, Professor Arrigo Serpieri, and has undertaken a comprehensive inquiry into the increase of small landed property in Italy since the war. I was charged with the direction of this inquiry, which began in 1929 and has been concluded for thirteen out of the sixteen districts of Italy. A joint report will combine the results for the whole of Italy. The following remarks are based on this inquiry.

I

In the first place, I must give a short survey of the distribution of landed property in Italy and show the conditions of the working-classes who endeavoured to obtain it. Unfortunately, there are no good statistics on landed property. A certain substitute is provided by the two agrarian inquiries of 1880–4 and 1907–10, of which the latter was only concerned with South Italy, and, for the recent years, by the researches of the already mentioned National

Institute for Agriculture. As a result of these works and of personal observations I should like to point out the following.

In North Italy, in the spacious region between the Alps and the Apennines which covers, besides the high mountains and the charming hilly country, the extraordinarily fertile plain of the river Po, we find big estates, medium and small property, owned by town-people and farmers, in fairly equal proportions. The one or the other size of property is preponderant in each of the three divisions of this region.

In the Alps above 300 m., and equally in the High Apennines, the small holdings are predominant; in addition to them, big estates and holdings of middle size are scattered about. There are also extensive pastures and forests amounting in the High Alps to almost half of the communal land, which are a necessary complement to private enterprise as well as an important basis of communal finances.

In the hilly country, where fruits and grapes are cultivated, the small holding is less often to be found than the medium-sized property, while big estates are very rare.

Big- and middle-sized estates are predominant even to-day in the big plain of the river Po with its fields of wheat, turnips, rice, and hemp, its irrigated meadows, its long lines of vineyards, its cultivations of fruits and vegetables and its various agricultural occupations. It is perhaps here that the greatest agricultural progress has been achieved. Wheat yields average 30 dz. and in some localities even more than 80 dz. per hectare. The peasant population of this district is highly intelligent, and they contribute much to the increase in the wealth of the country.

In many parts of this region, especially in Lower Lombardy and some recently cultivated districts, we find big freeholds or leaseholds, cultivated with the help of a modest number of permanently engaged workmen and a greater number of labourers working for daily wages. Owing to their uncertain and only occasional employment the latter are not firmly connected with the land. Nearer to the province of Emilia, however, small leaseholds or a lease by which the landlord obtains half the produce instead of a fixed rent (*metayage*), or a mixture of leasehold and *metayage* become more and more frequent.

Those small leaseholders and farm hands are the groups in this region who try to obtain land of their own. They want either to become small freeholders or, if they have already got some property, to increase it. There are also the allotment holders who would like to increase their property. Under the pressure of these classes and favoured by exceptional circumstances there originated in North Italy in the decade after the war a great number of new farms. This happened in the plains and in the hilly country, while we find in the mountains where, as we have seen, small holdings were already preponderant, rather an emigration of small farmers into the richer plains. In the four provinces, Piedmont, Lombardy, Venetia, and Emilia, 430,000 hectares in all passed from town people into the possession of small farmers. The main purchasers were tenant farmers of one sort or another, next came allotment holders, and, very seldom, farm hands. A new and numerous group of purchasers are the workers from the great industrial factories, who want to possess a bit of land so as to give their family an opportunity for work and to get an additional income besides their wages.

In Liguria, which is north Italy in all respects but the climate, there was not much formation of small-landed property after the war; the chief reason is that it was always there. It is much divided up, especially in the horticultural districts near the seaside, where a few thousand square metres spell fortune to the owner who cultivates them himself.

In central Italy, i.e. Umbria, the Marca d'Ancona, Tuscany (without the Bassa Maremma) and Latium (without the Agro Romano and the Pontine Marshes), the *bourgeois* big and medium estates are predominant, with the exception of the mountainous districts of the Apennines. They are, however, not the working unit as in Lombardy, but are divided up into a number of family holdings held under a lease by which the owner obtains not a fixed rent but half the produce. The manor, embracing family holdings of this kind, where the landlord sometimes lives, consists of offices, granaries, vaults, and other storehouses, which serve for the receipt and utilization of the landlord's half-share of the produce; from here orders to the farmers are given, so that the manor represents the governing centre of the holdings which belong to it. Apart from these farmers, who have usually lived on their farms for many years and who form the largest class of the population, there are small holders and a very small number of day labourers. Small freeholds are rare outside the district of the Apennines and are generally too small to support a family. Owing to the predominance of *metayage* the formation of new small freeholds is insignificant. They increased only by about 72,000 hectares in the decade after the war. The purchasers were in the main lease-holders and—to a small extent—also *metayers*. (The Bassa Maremma in Tuscany, the Agro Romano, and the Pontine Marshes, which once resembled the extensive areas of southern Italy, are engaged in a complete agrarian transformation since the beginning of the great meliorations of the *Bonifica Integrale*.)

The agrarian conditions in south Italy and Sicily differ very much from those of north and central Italy, especially on account of the climate. Rain falls but seldom here in spring and summer and is concentrated in a short period of the late autumn and winter. Here two worlds confront each other; the plains near to the coast, irrigated and cultivated with the utmost care, with their abundant crops of grapes, olives, oranges, lemons, other fruits, and vegetables, which are exported to a great extent, and the plains of the interior, clayey and half dry, where fairly extensive wheat growing and stock farming is predominant, though even there may be found more intensive cultivation in places where irrigation is possible or the soil is eocene.

This contrast is most obvious in Sicily. The interior of this island, about two-thirds of its surface, is the region of big estates, the transformation of which began only some years ago. No tree is to be seen here for many kilometres and hardly a building except a few scattered farms. Here malaria raged formerly and even to-day is not entirely stamped out. Between the excellent main and provincial roads vast regions are without practicable roads as there are few district roads and even fewer parish or farm roads. The country conveys the impression of a waste desert, especially in summer when the fields and the pastures scorched by the burning sun show a black or grey colour. In spite of that, this region is thickly populated with more than 100 inhabitants per square kilometre, for the population live here in big communities of more than 5,000 up to 50,000 inhabitants, which are purely rural communities despite their size. Every morning the farm labourers go to their work from these centres, riding mules and donkeys and covering distances of 20 to 30 kilometres daily. It is only at harvest time that they remain on the fields all night, sleeping in miserable huts or in the open air. Later on I shall speak of the new changes.

According to the inquiries of the Institute of Agriculture the number of small freeholdings on the south Italian mainland has increased by about 300,000 hectares and in Sicily by about 160,000 hectares since pre-war days. The increase, therefore, is rather greater in this region than in northern Italy.

The conditions in Sardinia are even more characteristic. This island has only a quarter of the population of Sicily (40 per sq. km.), though it is nearly as large. There is very little soil suited to intensive cultivation, at least for the moment. Sardinia is on the whole even to-day a country of pasture land rather than of cornfields. The increase in small-landed property amounts to less than 10,000 hectares. There has also been an increase in the number of shepherds who have attained independence.

An interesting way to form small freeholds, which is not limited to Sardinia but is especially frequent there, is to transfer a farm to a tenant for melioration. When the farm has been improved after a couple of years, half of it remains with the landlord while the other half becomes the property of the tenant as a compensation for his work and his expenses.

II

This magnificent movement to increase the number of small freeholds is new only on account of its extent which surpasses by far the usual, but is not new in its essence because it has its origin in the farmer's desire, widespread and eternal, for land. Struggling for land, the true farmer endures all sacrifices, exertions, and hardships, his whole mind being fixed on one thing: to get land and to increase it. And this *terrae sacra fames* has by no means the contemptuous meaning associated with the saying *auri sacra fames*. On the contrary, the tenant and the farm hand who work their way up to be freeholders are victors in a hard struggle and deserve well of their country.

The farmer's efforts to obtain land have been supported in Italy, and especially in southern Italy, by two legal acts. One was the abolition of feudal rights at the end of the eighteenth century, the other the secularization of ecclesiastical property after 1860. The abolition of feudal rights was connected with the abolition of hereditary rights of pasturing, and the land was divided between the communities and the lords of the manor (Barons). The latter were given the land lying at a distance from the villages and difficult to work. Hence the development of the big estates. The new communal property was partly sold. Here, as on the later occasion of the secularization of ecclesiastical land, the small farmers were favoured. Some of these freeholders, however, were unable to keep their property, as the land had been transferred without sufficient safeguards.

Emigration reaching its climax in the last decade before the war gave a further essential help to the formation of small property. The emigrants sent back a considerable amount of their savings in order to pay debts, to build and furnish houses and to buy as much land as they possibly could. Thus Sicily alone got more than one hundred and six million gold lire in one year, 1907.

III

The main reason for the enormous speed with which the transfer of landed property to the small farms took place after the Great War was the war itself and its results.

Strengthening the position of the working classes and—in relation to it—weakening that of the other classes, the War caused a radical change in the soul of the peasant and thus had far-reaching political consequences. Having fought year after year in the trenches and having suffered severe privations and hardships, the peasant who had braved unheard of dangers in order to defend his country was no longer the same as before the war. He had become conscious of his services and he therefore asked for consideration of his demands. He had heard that the Russian peasants had seized the properties of their former masters during the revolution and that many other countries had promised or begun agrarian reforms in order to give the soil to the peasants. 'Land for peasants' was the magic slogan which excited the peasants of all countries just because its meaning was so vague, and was therefore seized upon by the extremist parties.

The peasants acted very quickly. In the spring and summer of 1919 they hastily formed co-operative societies which took possession of all land that was, in their opinion, uncultivated, especially in Sicily and Latium where most of the big estates were to be found. As this movement took a dangerous shape and as the Government could not cope with it, an attempt was made to give it a legal form. The two Acts, Visocchi (2. ix. 1919) and Falcioni (22. iv. 20) made the seizure dependent on certain conditions and rules. Under these acts the organizations of the peasants took lawful possession of about 50,000 hectares.

This action of the peasants, tolerated in the beginning and later organized by the Government, had a great moral effect. It made the owners of the estates fear that any one could proceed in this way in the future, and the peasants hoped that all land would soon fall into their hands. As time elapsed, the force of the revolutionary wave got weaker and the more sensible peasants realized that it would be better to own the land immediately by buying it lawfully than to wait for a conjectural revolution. As the intimidated landowners were only too ready to sell, the peasants freely acquired much land in the first years after the war.

The economic consequences of the war were perhaps even more important. There was a sharp rise in the price of agricultural products in the first decade after the end of the war, owing partly to the increased demand, partly to the continuously progressing devaluation of money which was only stopped by the new currency policy announced and introduced by Mussolini in his speech at Pesaro on August 18, 1926. A part of the rise in prices was, however, readjusted through the increase in wages and in the prices for articles needed by agriculture.

The increase in agricultural incomes had different effects on the different groups engaged in agriculture. The upper classes (nobility and squires) were misled into an increase of their standard of living which was not too easy to cancel later, or they believed themselves to be clever in investing still more capital in agriculture, even if, as was generally the case, they had to borrow this capital from the banks under terms of repayment not suited to the duration and insecurity of the investment. Thus the situation of the land-owning capitalists, and especially of the squires, was gradually weakened through the increase in the costs of production and in the standard of living as well as through the growing indebtedness. The peasants, on the other hand, were much less hit by the rise in the costs of production, because, as a rule, they did not employ farm hands and did not improve their standard of living beyond, perhaps, allowing themselves more wholesome food. Favoured, moreover, by the laws for the protection of tenants, which kept the rise in rents within bounds, they were able to save considerable sums which, naturally, they endeavoured to invest in land. In the first years after the war there was an additional favourable fact, viz. unexpectedly large emigration, especially to the devastated areas of northern France and to the U.S.A., which brought a very considerable influx of money from abroad. In a few years this amounted to more than 2 milliard lire owing to the high rate of the dollar which rose to 26 lire. It is to these various causes that we can trace the extraordinary amount of land bought up by the peasants to which we have just referred.

IV

What groups of country people have mostly participated in the purchase of land?

We can state, according to the size of the land purchased, the following quite general sequence: Allotment holders, small leaseholders, *metayers*, day-labourers, farm-hands, and industrial workers. One person often belongs to more than one category. For example, the allotment holders, especially numerous in the highly cultivated regions and in the industrial districts, are forced owing to the very small size of their holdings to rent additional land or to work as *metayers*, if they are not chiefly engaged in industrial work. Some of them are also agricultural and industrial labourers by turns.

The holding of small lots is more common in Italy than in most other countries, partly because of the peculiar agricultural conditions, but mainly on account of the constant sub-division of inheritance, as every son obtains his share of the land. Occasionally even the daughters inherit their share in land. Thus every single field will be divided into as many parts as there are children with rights to succession. If the children are industrious and able they try in their turn to acquire by additional purchases a satisfactory property which will be divided up again after their death. This is the explanation of the fact that the allotment holders are the dominant purchasers of land; they know agriculture best, they are the first to possess the necessary means, and, last but not least, they feel most strongly the desire to have land of their own.

Second place is held by the small leaseholders, supported by the higher prices of agricultural products as well as by the legislation for the protection of tenants mentioned above. Thus quite a number of leaseholders have become owners of the very land they had cultivated for many years on lease.

The cases in which *metayers* have become owners are less numerous. This is partly due to the fact that they have less income in cash and considerable means are necessary for the purchase of a farm, and partly because their economic situation is quite satisfactory. If, however, *metayers* purchase land apart from the farm they cultivate, they usually stick to their *metayage* and give the purchased land either to another person on *metayage* or to their married sons.

The agricultural labourers succeed least in becoming owners of land. Though their need and craving for land are considerable they lack the necessary capital. We shall, however, learn later of a particular kind of land which is open to them. We have already mentioned the important land purchases of the industrial workers in northern Italy.

V

In inquiring what sort of land has been taken over by the peasants and how this transfer happened we have to distinguish between two main categories of land; the areas with a predominantly extensive and those with a predominantly intensive cultivation.

The communal property to be divided up, big estates (*latifundia* in the Italian sense of the word), formerly owned by private persons or by religious institutions, and the half-cultivated plains and scrub areas belong to the group of extensively cultivated lands. The districts in question are far away from populated settlements and are so big that no farmer could purchase them *en bloc*. It would have been necessary for them to undergo a process of planned settlement before their transfer to the farmer could take place. But this happened rarely before the Fascist era. People were generally satisfied to divide the land into small allotments and to sell them to the farmers, without caring for the supply of water, the construction of roads or the building of necessary houses.

The main reason for this unsuitable process is the abundant number of applicants in the case of communal properties. The people regard this property in the first place as the property of the very poor, all of whom, with some justification, ask to be considered in the distribution of the land. To draw their attention to the rules of reasonable colonization is in vain, the land available is limited, and as the peasant's hunger for land is enormous, the poorer they are the greater is their desire. These peasants do not want to wait, and they would not understand if, owing to a proper use of the lots, some were excluded and others preferred. Each of them demands a bit of land, no matter how small it is and how far away it is situated. Therefore, nearly all distributions of land, and especially of communal land, occurred regardless of technical and economic considerations. Only since Fascism came into power has there been a change, and this change will be still larger in future according to the progress of the legislation on the *Bonifica Integrale.*

The apathy of the landowners is to be blamed if the distribution of big estates lacks all preparation of colonization, as it usually does. They sell their property, just as it is, either to a land-jobber or to a co-operative society. All that the land-jobber does is to buy the land wholesale and to sell it in small lots by which activity he earns in normal times 10–20 per cent. of the cost price. The co-operative societies, on the other hand, are more ready to take pains to add by collective preparations to the work of their individual members.

The *Opera Nazionale Combattenti* (National Work of Ex-service men) deserves special mention. It is a public utility institution founded in December 1917 and endowed immediately with a capital of 365 million lire. The greater part of this capital is invested in enterprises for melioration and settlement. An excellent staff of technicians is at its disposal, and it enjoys the confidence of government and people. A list of notable works stands to its credit. Most famous amongst them is the draining and colonization of the Pontine Marshes, especially supported by the Duce and the Fascist Government. Thousands and thousands of small farms as well as two beautiful cities, Littoria and Sabaudia, shortly to be joined by a third one, Pontinia, have replaced those marshes in a few years. The farms, however, are not given at once as freeholds but under *metayage* though with a view to being transformed as soon as possible into freeholds.

Only the smaller part of the 1 million hectares of land which—as already mentioned several times—have been transferred to small farmers were extensively cultivated or half-waste areas. This is obvious as, with the exception of Sardinia and some districts in the inner part of southern Italy and Sicily, Italy no longer possesses any large areas of land really extensively cultivated. Thus most of the estates used for the increase of peasant holdings were land which had been intensively used by its former owner.

Naturally, well-cultivated farms of this kind need no special preparations to be sold. They can be sold without agents quite easily, if they are separated from larger areas. They are, however, in the highest demand, because they yield better results, are near the settlements, and do not demand heavy expenses for the construction of roads and buildings, &c. They are also by far the most expensive, as nobody wants to sell them. Up to the present crisis the owners of big estates were most opposed to their sale. When, however, the owners having run short of money were forced to sell, they usually turned to land-jobbers, who bought the estates wholesale and sold them again after they had been divided. Sometimes land-jobbers gained up to 100 per cent., but they went bankrupt too, when the prices suddenly collapsed. The owners of middle-sized estates only sold those parts which were situated at the border of their property, if they were not offered especially attractive prices. The small non-peasant proprietors were most ready to sell, as they mainly were hit by the increased costs of administration and could least resist the offer of high prices. In south Italy this group of landed proprietors has almost entirely disappeared.

The size of the land sold to the peasants was generally small, mostly, so to speak, scraps of land. Whole estates were rarely sold. The average size of the land sold was 2·5–3 hectares of the extensively cultivated areas and less than 1·5 hectares of the intensively cultivated ones. The prices fluctuated in the former group between 2,000 and 5,000 lire per hectare, in the latter between 10,000 and 120,000 lire per hectare, according to the quality and situation of the land. They were at their lowest in 1920, at their highest in 1926.

The transfer of 3·57 per cent. of the agricultural and forest areas of a country from one class to another is bound to have important economic and social consequences. They are, of course, most obvious in places where the distribution of landed property was the most unfavourable. Thus, in Sicily, the proportion of the farm hands without land to the total rural population has considerably changed for the better through the reduction of the big estates by 160,000 hectares, most of them purchased in small lots by farm labourers; there are communities in which the percentage of farm hands went down from 70 to 20 per cent. Everybody realizes what it means for the economic and social structure of a country, if such a vast number of farm labourers, until then without a firm root in the soil, without a secure future and, therefore, always a discontented and restive element of the population, get a share, however small, in the land. But even in districts of intensive cultivation the transfer of the soil to farmers who cultivate it themselves can have nothing but favourable results for the whole nation. This transfer occurred in Italy without artificial interference, and entirely as a result of the economy and the industry of the peasant population. Thus owners of big- and medium-sized estates who sell only a part of their property are not necessarily weakened in their economic position, as they may use the money for the improvement of their remaining land and thereby increase its output. If, however, they have had to sell their whole estate owing to economic difficulties, it is only to be welcomed that it should go to more capable people who cultivate it with their own labour. Furthermore, it is not to be regretted that *bourgeois* smallholders should give up an estate which under their management yields a much smaller output than under that of a capable peasant, and that they should begin a new living with the money obtained.

The advantage of an increase in small- and medium-sized holdings would, however, be paid for too highly if it were connected with a decline in production. But that is not the case in Italy. A year ago I travelled through the whole of Sicily in order to see what had happened on the big estates which had been split up. I gained a really inspiring impression. Though the problem of the big estates is not yet solved there, it has been brought nearer solution to a remarkable degree. The Sicilian peasants, having themselves become landowners, have planted in every possible place vines and trees, especially almond and olive trees; where, however, agriculture is more suitable the fields have got an entirely different appearance, thanks to better cultivation and dressing of the soil; the cultivation of green food has replaced the pastures, &c. In the regions of intensive cultivation the peasant has succeeded through his much greater amount of work in obtaining a further increase of output, despite the lack of capital which had been used to the last penny for the purchase of land.

It is not the fault of the peasants if everything cannot be called perfect everywhere, if, in particular, the problem for the big estates is not yet solved, because the necessary preparation for colonization was lacking when they were divided up. What they have accomplished and what they are accomplishing now, until some years ago without any assistance from the responsible quarters, shows what would have been gained through acting—to some degree—in accordance with a plan and what can be obtained in days to come. This ought to be a stimulus to meet their just demands.

VII

The land purchases of the small farmers and the agricultural workers, which we have just described, were most numerous in 1919–27. Since then they have become more and more rare and have been finally discontinued. The main reasons for this were the exhaustion of the peasants' capital, the deflation and the fixing of the lire, which lowered the price of the land and thus diminished the stimulus to sell.

A new period began in 1930, mainly characterized by the grave agrarian crisis which staggered agriculture and agricultural property with an unheard of force. Obviously, it did not spare the newly formed small holdings. As the inquiry of the Institute for Agriculture has been extended beyond the date originally fixed, it has been possible to study the influence of the crisis on these small holdings. Our inquiry has proved that the influence has been very different according to the amount of indebtedness. The property is more imperilled through a great extent of debts than through a small one. Fortunately, the number of small owners with a small load of debts is much greater than the number of those deeply involved in debt. The Italian, and particularly the south Italian peasant, does not like to run into debt, and, moreover, many of the debts for land purchases had been repaid in the prosperous years before the crisis, when the products yielded a high price. But those small-holders who stretched their credit too far and who could not repay their debts in time are in a very difficult position. These cases are especially numerous in north Italy. The creditors of these indebted farmers are partly banks, but perhaps more often private persons who, with a few exceptions, are not professional money-lenders and usurers but good friends of the debtors. They have lent the money on moderate terms without any real security, merely on note of hand, but these obligations are considered sacred all the same. The following shows how heavily these debtors have been struck by the crisis. The fall in land prices has not infrequently resulted in a depreciation of as much as half of the sum once paid. If, therefore, a person in Emilia bought a farm at a price of 20,000 lire per hectare in 1928, but paid only half of the sum, his debt would run into the full value of the land in 1932. It was bound to surpass his solvency even if it only amounted to two-thirds of the value. Without doubt, there would have been a great number of break-downs if it had not been for a Bill, introduced by the deputies Serpieri and Tassinari, which made it possible to lower the debts which had become unbearable owing to the changed monetary situation.

Aided by this Act of the Fascist Government the small-holders struggled with the utmost effort for the maintenance of property so laboriously gained. The sufferings endured to avoid loss of land are even worse than those borne in order to obtain it. Most succeeded in maintaining it, but a small number had to give up the fight. Fortunately, their land has not fallen back into the possession of its former owners or other members of the upper classes, but has been purchased by people of their own class who, having made some savings, were able to buy the land now that the prices had fallen. There are, however, cases where the land has been purchased by industrialists, merchants, or members of professions, who regard the soil as a secure and suitable investment though not a very profitable one. This ought to be stopped if it increases.

VIII

The inquiry of which the results have been reported here has revealed the extraordinary treasure of moral forces lying in the soul of our rural population. For it is, indeed, an astonishing fact that the Italian peasant succeeded in a few years, with hardly any help from the state, in bringing about a redistribution of landed property which other countries could achieve only through an expensive agrarian reform. It is the more admirable as the driving force behind it was not the desire to become rich, but only the wish to be enabled to support his family by working on his own soil. Thus a Sicilian peasant told me: *Non vi è niente di più bello che lavorare colle proprie braccia la propria terra.* (Nothing is more beautiful than to cultivate your own land with your own hands.) From another point of view Professor Tassinari has pointed out to you, as the result of his inquiry into the distribution of agricultural incomes, that the holders of small- or medium-sized farms are in the best position to resist the crisis.

But our investigation has also disclosed the great dangers which again and again imperil small holdings. We have mentioned the crisis and the indebtedness increased by it. Other dangers are, the rural rights and customs of succession which cause a continuous redistribution and splitting-up of the land in each generation. The insufficient organization of the agricultural markets and the imperfection of the co-operative societies are additional deficiencies hampering the rise of the agricultural classes.

The Fascist Government will know how to solve these problems with the same energy with which it worked for the protection of the farmers and for the 'back to the land' movement. I should like to mention especially amongst recent legislation the paragraph, added to the new standard text of the laws concerning the *Bonifica Integrale* by the Under-Secretary of State, Serpieri, which deals with the consolidation of land to be improved under the *Bonifica Integrale* scheme. Furthermore, measures seem to be imminent to increase the amount of land available for colonization. You may trust to the forethought and determination of the Government for the fulfilment of all the other tasks connected with the well-being of agriculture. The Fascist State which, in the words of the Duce, 'goes to meet the people' will overcome all difficulties, with a clear knowledge of the national needs and by removing conflicting interests through the corporate organization of the economic and social life.

THE FAMILY FARM

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BEFORE I can start to consider the family farm as a social institution, I must consider it first as an economic institution, and towards its future as an economic institution my experience, my information, my judgement make me adopt a sceptical attitude.

Agriculture is the chief or almost the only instance of our great productive industries which has retained the small-scale unit of production in large numbers. Indeed, amongst the great industries and commercial services, only the retail selling of goods has retained the small-scale unit to the same extent as agriculture. The existence of very high numbers and proportions of small retail businesses constitutes one of our great problems in securing economy in the marketing and distribution of goods, and especially of foodstuffs. The existence of large numbers of small-scale units of production in agriculture is setting and will set one of our greatest socio-economic problems. In a future meeting of this International Conference some of us will almost certainly be considering how we can get rid of a large proportion of our small-scale units with the least possible economic injustice and social disturbance.

The outstanding features of economic and social changes in relation to agriculture during recent years have been:

1. The rapid-rise of technical efficiency in agricultural production.
2. The improvements made, and rapidly becoming possible, in organization for production, which lead to economic efficiency in agriculture.
3. The tendency of consuming population to become stationary or even to decline.
4. The rise of technical and economic possibilities of feeding the population with less land and less labour than is now in use.

These seem to be the fundamental conditions in the general situations which we are considering. Some elements, such as financial dislocation, important as they are at the moment, may be removed, and then these fundamental conditions will not only remain but will gain their proper prominence in the social consciousness.

We all tend to think of the agricultural depression as a condition which may be removed, and to expect or hope that the conditions of prices or incomes prevailing before 1928 may be re-established. But it is quite possible that the agricultural depression in this sense will never be removed in our lifetime, and it is almost certain that it cannot be removed by the methods which some of the chief countries are now using. It appears that there can be little hope of lifting the agricultural depression until the industrial depression has been lifted. The measures of which we have heard so much in the last few days will maintain, possibly increase, the purchasing power of the 30 per cent. of the commercial world's population which is agricultural, but they cannot put the industrial machinery into full work. When industrial conditions improve, agriculture will have a very big reserve of productive capacity which will almost certainly be used, and if it is used, will certainly create surpluses on some markets.

If agriculture in all the countries which have been concerned with international commerce is to retain in productive service all its people and all its land, it must obtain bigger markets either through an increase in numbers of consumers or through an increase in their purchasing power and their actual consumption; or, alternatively, it must stop all tendencies towards further rise in technical and economic efficiency. Perhaps a wide extension or the universal establishment of family farms would retard these tendencies sufficiently to make certain the use of all agricultural labour now available. If, however, the claims for the super-productivity of land under small-scale cultivation are to be accepted, even this development may not enable us to retain in use all the land now cultivated. Here we are dealing with one of the real uncertainties of social science. Widespread or universal extension of the small family farm system might again start an increase in the population of the chief countries of the commercial world. This is not a condition to be desired, for it would lead us backward in the paths of industrial and social progress and backward in culture, for it would lead us backwards in respect of those methods of producing goods and services for human cultural purposes which have been the distinguishing feature of western civilization.

But indeed we need not fear, for in the long run the great mass of the population of the industrial-commercial world will not consent to be led backwards. Their whole tendency, even during this period of industrial depression and general unemployment, is towards taking every possible step to maintain and even improve their standards of living. Before we can reverse the whole of the tendencies of recent economic and social development we have to change the attitudes of mind of great masses of the best of the human populations. The urge towards intellectual progress, towards discovery and application in science, towards invention and adaptation in mechanics and in industrial and social organization, lies deeper than the economic motive as this is commonly thought of, and certainly lies deeper than the profit motive. Amongst the stronger and more important of the real urges of modern mankind in society are those of struggling for knowledge and then towards applying knowledge in obtaining security and betterment of life.

Perhaps the most important question before the advanced societies at the present time is this: Shall society regard the difficulties and dangers created by modern finance and modern industry as unavoidable or unconquerable and move backward towards more primitive systems; or shall human societies move forward, with the aid of the best social science obtainable, to secure the necessary degree of control of their financial and industrial organizations and processes? When I ask the question, I can give only one answer: Society must at least attempt other moves forward.

Questions of the form of organization of agricultural production are very closely involved in all the great economic and social questions of the day, and even in this great fundamental question. While many people appear to regard an increase in agricultural population as socially desirable, or at least politically desirable for some countries, we could only regard a general increase in the *proportion* of agricultural population as a backward move in economic and social organization. Human social progress, human culture, has depended on our ability to set aside an ever-increasing proportion of people from the primary service of producing foodstuffs, and on giving them functions in the supply of other goods and services. The world is not yet so rich in other goods and services as to be able to afford to send more people back to food production by more primitive methods than those now in use. It appears somewhat remarkable in economic discussions that any country should regard with envy another country which has a higher proportion of persons engaged in agriculture. If any country were economically self-supporting, its essential poverty or wealth, its possibilities of supply of goods and services for cultural purposes, could be measured fairly closely by the proportion of its agricultural population; its essential wealth would rise as the proportion of people required to produce foodstuffs diminished. And this is true for the whole of the industrial-commercial world; that is, for those countries which have been closely involved in international trade. While it is true that technical and economic improvements in industries other than agriculture have made possible a greater supply of non-agricultural goods and services whenever we can set our industrial organizations in full operation, it is still true that we do not need to send more people back to agriculture and cannot afford to send them back to more primitive agricultural systems. Moreover, while we retain large-scale systems of production in other industries, with possibilities of high productivity per person and high standards of living in those industries, it will probably prove impossible to send more people back to primitive agriculture. Education and the development of transport and communication have made or are making possible the rapid and constant comparison of conditions of work and life in various industries and various social environments, and unless we can isolate the groups of agricultural population from the general communities they will make these comparisons and will seek to enjoy the higher and more satisfactory conditions!

It is from such points of view that I would examine the family farm system. But first I have to ask: What is a 'family farm'?

Here the assumption is made that the condition which justifies the application of the term 'family farm' is that the whole or the major part of the manual labour which is required for the business conducted is supplied by the family of the occupying cultivator. The term cannot be restricted to farms on which the family of the occupying cultivator supplies *all* the labour; for under practically all the systems to which the term is applied some wage-paid labour is engaged. Indeed, it is characteristic of the family farm systems of Wales and of the west of England that young men or young women from the families of some farmers are employed as servants on the farms or in the homes of farmers of much the same type and status. Some of these young men and women may regard such employment for wages as merely a temporary stage of occupation: almost as an apprenticeship. They may be wage-earners between 14 (or more commonly 16 to 18) and 25 to 30 years of age, and then become small farmers. Others become permanent wage-earners, in or outside agriculture, according to the economic opportunities or the personal capacities of individuals.

Under some types of farms described as 'family farms' with seasonal crops, there is considerable employment of casual labour; and as much as one-third to one-half of the total annual labour requirement may be supplied in this form. Under other types, there is regular employment of a considerable proportion of wage-earners, who are and remain of the employee status throughout their lives.

The human family itself shows so many variations in size and characteristics that it would be almost impossible to fit the individual family and the individual farm together without any modification of the main system of securing manual labour. In practice the complete and perfect fitting of family to farm, so that the family supplies exactly the amount of labour required for cultivation of the farm at optimum profitability, without shortage or surplus, is never found over whole systems and is rarely found on individual farms. The labour of many families is loosely fitted to their individual farms, but frequently with either (*a*) insufficient labour for cultivation to or near the optimum point of yield or profitableness, or (*b*) with surplus of labour and failure to use some of the labour-force available, or (*c*) with use of labour in intensive cultivation beyond the point of optimum returns for the type of farming followed. Either of these conditions tends to economic waste: in case (*a*), waste of land; and in cases (*b*) and (*c*), waste of labour-force.

These, of course, are the chief conditions which lead to the modification of the main system of securing labour. On one side we have occupiers of family farms seeking labour to employ for wages, and on the other we have families on small farms seeking outside employment. But the more important effort at the moment is directed to the attempt to define the 'family farm' with reference to the supply of labour. If it is accepted that the family farm does not necessarily secure all its labour from the family of the occupying cultivator, what is to be the limit of the proportion of *employed* labour before the enterprise is to be regarded as of capitalist character? Here opinions will differ, but it is suggested that where the amount of regularly employed labour amounts to one-half of the total required (or used) the enterprise begins to take on the characteristics of capitalist enterprise. When this condition arises over the whole of a geographical area, or over a whole system of farming, some of the families concerned have the permanent status of employees, while others have the permanent status of employers, and there is direct separation of economic interests, and some distinction by social class. Moreover, whenever more than half of the total labour used is bought for cash there will arise the condition in which the income of the farmer will depend as much on the wages paid for labour (or the value received for wages paid) as on some other of the more important factors in economic success. These are the first elements in the characteristics of capitalist enterprise. On many grounds it is necessary to distinguish between the family farm and the capitalist form of organization.

It is clear, then, that the term 'family farm', if it is to have any definite meaning, must be limited in application to those farms or farming systems in which considerably more than half of the total labour required or used is supplied by families of the occupying cultivators. Further, it may be said that there is danger of development of a separate class of permanent employees wherever the proportion of the labour supplied by the families of farmers falls below two-thirds of the total required.

The full functioning of the 'family farm', to justify the claims of both economic and social values that are made for it, must depend on the system providing, for the great majority of persons concerned with its working, a fair opportunity of becoming independent farmers; and it must provide this opportunity for nearly all those who look to the system for permanent maintenance.

Beyond this any definition of the 'family farm' is almost impossible. The term may and will be applied, for instance, to farms occupied by cash-tenants, share-tenants, part-owners (owners with mortgages), and full owners. It will also be applied to types of farming of these categories:

Crop Husbandry	Small scale	Hand labour.
	Large scale	Machine, or hand and machine, labour.
Animal Husbandry	Small scale	Hand labour.
	Large scale	Pastoral, extensive, with hand labour.
Crop and Animal Husbandry	Small scale	Hand labour.
	Large scale	Machine and hand labour.

Between the small market-garden or truck farm of about one acre (0·4 hectare) and the grain farm worked by machinery covering several hundreds of acres (even hundreds of hectares) there are very wide ranges of economic and social differences. But the term 'family farm' may be applied indiscriminately to each, and at all the intermediate stages, so long as the major part of the labour (say two-thirds or more of the total) or preferably all the labour is supplied by the family of the occupying cultivator whether he be tenant or owner.

Some one may perhaps suggest that another distinguishing feature of the family farm is the tendency towards combinations of enterprises, partly for the purpose of supplying the family with foodstuffs, or—as it may be expressed—of a tendency towards subsistence farming. This was one of its earlier characteristics in Europe and even in Great Britain. But in parts of U.S.A., Canada, New Zealand, and even in Great Britain, a large proportion of family farms have moved away from this condition to one of specialization on one or two enterprises. Although there is now some movement in a reverse direction, the continuation of this movement will largely depend on the continuation of economic depression.

As regards size of holding, confusion commonly arises by considering the term 'family farm' as synonymous with 'small farm'—or in Great Britain with 'small holding'. This is far from being the case, for the family farm properly considered may and will range in area from large to small according to (*a*) the fertility or economic productivity of the land, (*b*) the system of farming followed or the main types of products, and (*c*) the sources of energy used, manual, equine, and mechanical, and the proportions from each source. Again, in common public discussions, the general tendency to think of the area of land as the main determinant of the size of business causes confusion. But in actual practice small businesses are often found on large areas of land and, vice versa, large businesses are to be found on small areas of land. The large business on a small area—as in market gardening—will usually have all the characteristics of capitalist enterprise; while the small business on a large area will frequently have the characteristics of the 'family farm'. Nevertheless, even when the true characteristic of the family farm system, namely the supply of two-thirds or more of the labour by the farm family, is kept clearly in mind, it must still be remembered that the term is correctly applied to farms with many varying types of production organization, and to many forms of combination of capital and family labour.

For any useful *economic* discussion of the family farm in terms of farm management or of general economic organization of agriculture it would be necessary to consider the institution with reference to (*a*) type of farming concerned, and (*b*) the general economic environment. Obviously some technico-economic considerations which would apply to the market garden or 'truck' industry would not apply to large-scale grain production with mechanical and power equipment, or to pastoral sheep- or cattle-raising. Special technical and economic considerations of size of farm or size of business in relation to type of farming, or the chief lines of production, will be largely local in character. They will vary from one country to another, and sometimes from one area to another within one country, so it is almost impossible to discuss them in a practical way except within one country as the maximum area of consideration at one time. Moreover, the relative advantages and disadvantages of small-scale and large-scale (or small-area unit and large-area unit) production are subject to change and modification from time to time, and these changes are themselves localized in the first instance. As regards Great Britain, it may be said at once that recent changes in the technique and organization of production of some market-garden products (vegetables and fruits), of poultry, of dairy produce, and of pigs, are so rapid and important as to make almost impossible the segregation of any of these lines of production as specially suitable for the small-scale unit. But, at the same time, it must be said that the 'family farm' system is applied in Great Britain to many lines and combinations of production; and the only line in which it is not commonly found is that of large-scale arable cultivation. It is applied, for instance, to (1) market gardening, (2) poultry, (3) dairying, (4) dairying with poultry, (5) dairying with cattle-raising, (6) cattle- and sheep-raising, (7) sheep-raising; and to other combinations. Only a very few years ago many well-informed persons would have said that the relative technical and economic advantages in production of market-garden produce, eggs and poultry, dairy produce and pigs, lay with the small-scale units—the small holding or the family farm as commonly thought of—but with recent developments in technique, equipment, and organization successful large-scale units of production on these lines are being developed on specialist farms or in combination with other enterprises on large farms. There are still many economic opportunities for small or family farms, but there are relatively few, if any, lines in which these have marked technical or economic advantages over the large farms.

The 'family farm', in fact, finds its justification on general political and social grounds and in its appeal to a certain type of human individuality; a type for the most part reared and trained under or in close connexion with the institution itself. If a social engineer, or a statesman, were considering how he could obtain a given supply of foodstuffs—of about the present amount to 50 per cent. higher—from the agricultural area of Great Britain, with the least necessary expenditure of human energy and the least necessary contribution of raw materials (that is, with the least necessary general input); and at the same time afford the persons concerned with production the highest standard of living and the greatest amount of leisure consistent with maintenance of low prices to consumers; providing also for progressive technical development and for stability of the general industry in relation to market requirements; it is practically certain that he would not seek these ends by the strengthening or extending of the family farm system. With a favourable mental attitude of workers of all grades, manual, administrative, and executive, towards forms of large-scale enterprise suited to various lines of production, it is practically certain that large-scale units would prove to be highly economical, and far more economical than the present jumble of units of all sizes, following technical procedures of all stages of the evolution of applicable methods, with managements of widely varying qualities, and working under all sorts of conditions of organization and disorganization of production and marketing.

But, in fact, society has never sought purely economic ends in the organization of agricultural production. It has trained generations of agriculturists to work in small groups, and to look for rewards of a personal or social character, not primarily economic, according to standards of social values which persist most strongly in agricultural communities, but which in attenuated form are held throughout the whole community. In this respect, the position in Great Britain is complicated. In certain areas, notably in the eastern counties, but in local areas all over the country, agriculture has bred several generations of human servants whose traditions and expectations are entirely those of employees—whose desires and standards of success are those of regular employment and wages, of rates of wages satisfactory in relation to those prevailing for workers in other industries, of hours of labour not too long. For the future perhaps these desires may be expressed as: (1) regular employment or other means of assurance of regular income as by social insurance; (2) rising wages and diminishing hours of labour, with common rules of other conditions of employment; and then (3) satisfactory housing and the creation of social institutions for the use of leisure and for personal development. In England and Wales the existence of the Agricultural Wages (Regulation) Act of 1924, following the previous legislation of 1917 and 1920, is the social recognition of the permanence of this class and of the necessity of protecting its main economic standards. But in other parts of Great Britain, notably in the west of England, Wales, and parts of Scotland, the system of employment for wages in agriculture is not so extensively or highly developed. In these areas the peasant type of farmer, or more properly the family farmer and his family, still form a high proportion of the total agricultural population, and in some areas they are predominant. These people are reared in economic and social traditions in which the main elements are occupational independence as operators of farms, though not as owners; of saving for independent ownership of the means of production; and of uncontrolled management of such areas of land as they are able to rent on lease. Amongst these people there is still a strong 'family' element in the supply of labour, some patriarchalism in management and control which is still strong in the farming or occupational part of the family life, though becoming attenuated in other parts. The main element in their standards is that of business or occupational independence, or, in the best case, economic independence; for in the apparent occupational independence there may be many forms of disguised economic dependence. Once true independence is achieved, their main desire is for a bigger farm, or a bigger business, for until recently the desire for ownership of land has not been widespread amongst them. The desire for the bigger business and the status of employer of labour is by far the more common ambition of this type, while they remain in agriculture. Indeed, in some parts the family farmer type shades off (both over the whole class at the moment and in sections over two or more generations) into the class of employed workers at the one end and that of fairly large employers at the other. Yet there has always remained a fairly large central group, largely recruited within its own families, always carrying forward the traditions of the independent family farm. It is this central group which it would be difficult to adapt, either the people or their farms, to any system of organization of large-scale production.

Up to the present time these family farms have not been highly specialized. With the exception of market gardening, which has always tended to have its own special forms of recruitment of personnel, and its own special supply of labour, the bulk of the small farms have been run with some combinations of production enterprises. In recent years, however, considerable specialization has developed, and there are now areas in which dairying, for instance, is the main enterprise. Many more or less specialized 'small holdings' for poultry have been developed, and this movement has been expanding. Dairying and poultry is now a fairly common form of two-enterprise business; but the dairying and market-gardening combination is also extending. Arable farming for sale of crops is relatively unimportant under the general system of family farming, although in some districts there are fairly large arable farms, mainly run by large families, developing from the family farm to the employer stage. This tendency towards specialization of production will leave the small units rather more at the mercy of the changes in particular markets than the larger farms which are able to develop special unit organization in three or more lines. The small-holder poultryman will be more dependent on one market than the larger farmer who can specialize to the same extent, say, on poultry, pigs, and market crops, or on poultry, cows, and crops.

The family farm satisfies the people who have been reared in its traditions, and who are inured to the conditions of labour and life which its service involves, and perhaps no other system would give the same satisfactions to the majority of those who have been reared to manhood in its service. Even higher material rewards, possibilities of higher standards of living, shorter hours of labour, might not compensate for any loss of status, any loss of freedom to work at will as regards time or process or method, or any loss of the sense of economic security which a small amount of property, even in movable goods, appears to provide. In any case, a very considerable psychological adaptation of these people would be required to make them efficient collaborators under any other form of organization of production. As previously stated, certain offshoots of the system do become employees, certain others employers. Some who become employees in agriculture do so with little sense of loss of status; many who become employees in other industries do so without any sense of loss of status or of dignity and with appreciation of other conditions of labour and life. Those who become employers usually do so with a sense of pride and of ambition satisfied. They have no qualms about the satisfactions of the persons they employ, nor any general social sense of indignity in employment. Still, the central *bloc* remains, with its general economic traditions largely unmodified; its technical farming traditions and methods modified mainly by force of economic circumstances; and its social traditions modified in the younger generations by contact with families in other occupations. But in spite of this the younger members of the families of the family farms are sufficiently open to the influences of the general economic and social environment to adapt and modify their standards as regards hours of labour and of leisure, their expectations of material rewards and of standards of living, and more or less their general social standards and expectations, to those being established in other industries or under other agricultural systems. At almost any stage prior to establishment on family farms they could be adapted without loss of efficiency to the service of other forms of agricultural organization.

Judged by purely economic standards of production and its costs; of the provision which it makes for application of the social power of saving to the capital equipment of the industry; and of the provision which it makes for the rapid improvement of technique and economy of production (on the basis of application of science and engineering); it is practically certain that the family farm in many of its forms would stand condemned. Yet by a strange metamorphosis the economic faults of the family farm become its social virtues.

If the family farm retains a high proportion of people on the land in relation to the amount of labour which would be required with the use of better technique, equipment, and organization, it also maintains a reserve of possible labour for other industries, and such labour as is not yet imbued with trade-union traditions and requirements.

If it retains a population inured to hard physical labour and conditions of hard living, it also maintains a body of young men who in case of necessity will make fine soldiers.

If it retains a population slightly backward in industrial technique, and in requirements or desires as regards the higher elements of standards of living like education and personal development, goods and services; or retains a population more interested in property or capital than in current incomes or standards of living; it also maintains a population which is conservative, and believed to be relatively unchanging and reliable in the body politic.

If the family farm system retains methods, processes, forms of organization which are slightly out of date, or of which the technical justifications have passed away; or maintains processes of production largely uninfluenced by the changing winds of the markets; it also maintains relatively stable elements in the fluctuating economic world.

The comparative economic stability of the family farm largely depends on its use of comparatively primitive methods and forms of organization—very largely on combination of enterprises partly and sometimes largely for family subsistence purposes. Whenever the production on the family farm is specialized to one or two enterprises it is very little more stable than the larger capitalist unit; and when it is specialized to one or two lines of production with the aid of considerable mechanical force it may not be any more stable than the larger unit. The family grain farm in the U.S.A. and Canada, using the tractor and harvesting machinery, or the harvester-thresher, is not more stable than other organizations. The stability of the family farm largely arises from its independence of cash economy, and its dependence on manual sources of labour-force. Some forms of small-unit production—like poultry and pigs—which are entirely dependent on markets, on one side for purchase of raw materials and on the other for sale of products, must find their stability entirely in rapid and effective adaptation to market conditions.

But it should be borne in mind that when we judge an agricultural system by the number of people which it maintains, rather than by the standard of living which those people are able to enjoy, or when we judge it by its conservatism, economic or social, we are in danger of judging it by the advantages it affords to the people outside agriculture, or to the general community, and not by the advantages it affords to the people who serve it and through it obtain their satisfactions in work and life.

It too frequently happens that the general national desire for a large agricultural production; for provision of foodstuffs on the basis of low payment for labour used in production; for the maintenance of a reserve of labour with relatively low standards or expectations of remuneration and conditions of labour; coincides with the desire of the central group of persons now engaged on family farms to preserve their independence and their property interests, and this leads to artificial support of the system and to its further maintenance against some of the forces which would lead to other forms of organization.

But one great change which is occurring in several countries is likely to have a big and perhaps unexpected influence on the conditions of supply of labour for the family farm. Methods of industrial and social insurance, with state support, are removing some of the risks hitherto incurred by those who worked for wages. The benefits of Health and Unemployment Insurance, and of Pensions connected with these systems, are now causing a considerable redistribution of economic security and of national wealth. They have added very considerable amounts to the real remuneration of employed workers during their working lives and also passing through to their widows and children. In Great Britain the present position is that a small holder of 30 years of age needs a free capital of about £2,000 (or nearly 10,000 dollars) to provide the same security of income for his family as is enjoyed by the *average* of employed persons under the National Health, Unemployment, and Pensions (including Widows' Pensions and Children's Allowances) benefits now secured to employees by statute law. Economic security now begins to lie with the person employed for wages rather than with the 'independent' small holder or family farmer. It is true that not all these statutory benefits have been secured to employees in agriculture, but with the extension of unemployment insurance to agricultural workers, which must come in the near future, the supply of labour for the family farm will be subject to a new set of influences. Already the provisions of general social insurance have led many agricultural workers to seek employment outside the industry; extension of the system of benefits is likely to retard strongly the supply of labour to the family farm on the small scale—where the hope of quickly accumulating sufficient capital for the economic security of dependents must be somewhat remote.

In the long run, the conditions of labour, of income, and of general living on the family farm cannot be isolated from those attainable in other industries or in the general community. All the modern tendencies of education, of transport, and of general communication promise the more rapid assimilation of the general standards of living of agriculturists to those of the national community. Can the institution of the family farm withstand these tendencies? Much will depend upon (*a*) the amount of financial support on non-economic grounds which the general community will afford to this institution, or, alternatively, (*b*) the rate at which the family farm system can adapt itself to new technical methods of production; to more efficient forms of capitalization for equipment; and to more efficient forms of internal organization for production and external forms of organization for marketing. The technical and economic—the general industrial—education of the family farm communities is developing, but it is doubtful whether it will proceed sufficiently rapidly in some countries to maintain the system in its full strength. The sacrifices of time and energy, and of materials and services in standards of living, which have been made for the maintenance of the small family farm in many of its previous forms are no longer necessary. The economic welfare of society will no longer require them, unless the industrial-commercial world generally deserts the paths of progress and returns to more primitive conditions of industry and life.

THE FARM AND FARM FAMILY AS SOCIAL INSTITUTIONS

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I HAVE been requested to treat this question with special reference to Norwegian conditions, and this perhaps adds interest to it, because Norway is a country in which agriculture works under more difficult natural conditions than in most other countries. From time immemorial, agriculture has been considered as the principal occupation, and it still is. Other means of living may be more important economically, and are, perhaps, better known to the outside world. I may mention our shipping, our fisheries, our forestry, and, in the last few years, our electro-chemical industry which has attracted much attention to itself.

But all these activities group themselves round agriculture as the basic stable source of livelihood. Other sources may produce prosperity and surplus for a short time and attract workmen, but they can just as quickly plunge their workmen into unemployment and distress and then it is well to have the never-failing agriculture as a support. Both surplus and distress are well known in our fisheries, and partly also in our shipping. We may recall also the medieval voyages of the Vikings which at the time were an important and profitable livelihood.

Only the man who had farm and fields felt himself secure from poverty and distress. The possession of farm and field gave the owner and his family a higher social standing, and this position has always been privileged by a strong protective legal ordinance. Norwegian farmers have to thank these laws for the freer and better position they enjoyed throughout the Middle Ages up to modern times, in contrast to the peasants in southern countries.

I wish, first of all, to discuss briefly these legal ordinances, and then to mention in a few words the advantages of a uniform distribution of land and a predominance of family farms where the labour of the family plays a decisive part.

The legal institutions which, from ancient to modern times, have played so important a part in the life of our farmers, are the right of the first son to retain possession of the paternal estate (*Aasaetesret*) and the allodial rights (*Odelsret*).

It is not possible here to go into details of these legal institutions. We can only point out that by *aasaetesret* is meant the right of the oldest son to take over the family farm. The younger son follows the older in the succession and if there are no sons the right of succession goes to the eldest daughter. The *aasaetesret* is in force for all estates, even for those without *odelsret*. If the property is sufficiently large, the testator can divide the farm among the heirs, but the first heir under the *aasaetesret* has a claim to at least half the property. In order to prevent debts from becoming too heavy, it was laid down in 1863 that testators can determine the price of the property, and if this has not been done at the time of death, the first heir can demand the assignment of the farm at a reduced price, i.e. 20–30 per cent. under its commercial value, determined by a special board of valuation. The regulation stood the test of the agricultural crisis of the eighties and nineties well. The prices for land did not fall in Norway, which is only to be explained by the fact that farms were taken over at low prices. It is well known that Switzerland has introduced a similar law. There the heir obtains the farm at its earning value.

The *odelsret* was originally the right of first offer which the members of the family had when the farm formerly owned by a member of the family was offered for sale. Old-time laws contained very detailed regulations for the sale of freehold farms outside the family. The idea was that every one entitled to the *odel* should have the right of first offer, and only if none of those privileged put in a claim would it be sold to an outsider. Later on, the *odelsret* became a right of repurchase applicable whenever the property had left the family through a previous sale.

It was originally not possible to acquire *odelsret* before the farm had been in a family for five generations. The sixth generation was the first to obtain *odelsret*. Thus there were originally only a few *odel* farmers or *Haulder*, as they were called. They formed the highest social class, and were the only ones who could be elected to certain honours, e.g. to act on juries. They were superior witnesses and had a right to a better place of burial. The king chose his chiefs from the most powerful among his *Haulder*. These were called *Hirdmenn* (King's men), *Herser* (Chiefs of Districts), and *Jarle* (Earls).

Farmers who had bought their farms (*Kauplending*-farmers), came they from ever so good a family, held a much lower social position than the *Haulder*. The dignity of these various classes of farmers was expressed in the amount of amends paid for a murdered man. The fine for an *odel*-farmer was 96 cows, for a *kauplending*-farmer 48 cows, and for a freedman 24 cows. On the other hand, the amends for a murdered *Herse* amounted to twice the fine paid for an *odel*-farmer (192 cows), for a murdered *Jarle* to four times (384 cows), for a murdered king to eight times (768 cows).

The *odel*-farmers may be regarded as the nobility of these days, but they had obtained their power, not from the king, but through possession of an *odel*-farm. It must not be forgotten that these noblemen were working farmers who personally managed their farms and often took part in the manual work. Even the kings were then little more than powerful farmers and tradition frequently tells us that they did work in the fields with their own hands.

As the church and the power of the kings grew, there arose a higher class of officials. Under the Union with Denmark we see many noblemen trying to break the independent position of the Norwegian farmers as had been done in southern countries. Many peasants became tenants. It is assumed that about two-thirds of Norway's soil at that time was rented from big landlords. But even tenants remained comparatively free and independent in Norway. Socage and hereditary subjection were not introduced. A vital cause of their maintaining their position was the great self-reliance and the desire for independence which they had acquired many centuries before. In the past, definite rules had been laid down as to the rights of the tenant-farmers, who saw to it that these rules were not contravened. If things became too bad they chased the overlords out of the country or murdered them, or else they complained to the king in Copenhagen, who always lent them a willing ear. It was the king's desire to be on friendly terms with the farmers in Norway, and when a group of nobles in 1548, at a royal banquet in Oslo, petitioned for the abolition of the *odel*-right, so that they might acquire land more easily, the Crown Prince answered that the Norwegian law must be maintained and obeyed. A number of officials and noblemen were severely punished for its contravention.

Originally it took 100–200 years for the acquisition of the *odel*-right of a farm. In the twelfth and thirteenth centuries the limit was shortened to four generations or sixty years. If such a farm left the possession of a family without having been offered to those entitled to it under the *odelsret*, they could demand it back at its assessed value. The family had this right for the same period as was necessary for the acquisition of the *odel*-right, i.e. originally to the fifth generation. An essential condition, however, was that every twentieth (and later, every tenth) year, the right had to be proclaimed at the *Ting*, a declaration being simultaneously given that insufficient funds were available for the repurchase of the farm.

After the Civil Wars of the thirteenth century the period of limitation was still further shortened and the whole right began to lose its original importance. Specially powerful attacks were made against the rural laws of inheritance at the end of the eighteenth century. Then, as now, there were difficulties in accommodating the surplus of population. The people then responsible for the economic development of the nation regarded a great increase in the population as the principal condition of economic progress and wanted to abolish everything which put obstacles in the way. Amongst these were included both *aasaetesret* and *odelsret*, as these rights made the division of the farms more difficult, just as they made it hard for rich young farmers to buy land and property.

From other quarters it was maintained that the *odel*-right was an invaluable advantage to Norway, because it formed an insuperable obstacle to the accumulation of landed property in the hands of the aristocracy and the rich, as in Denmark. It protected the Norwegian farmers from being pushed into an unhappy and undignified position similar to that of the Danish peasant pressed into socage. As a very well-known economist wrote at the time:

> 'This right (*odel*-right) has been in force in Norway from time immemorial. The Norwegian farmer loves it and regards it as an advantage which he enjoys over other nations. He is proud to be an *odel*-farmer and makes it a point of honour to leave his farm to his son, that he too may be happy and respected. So widely prevailing an opinion should not be disregarded or repressed, but attempts should be made to waken, promote and strengthen it.'

In 1771 it was ordained that the *odel*-right could be acquired after ten years and lost if the farm had not been in the possession of the family for fifteen years; by a new ordinance of 1811 it was lost if the farm had not been in the possession of the family for five years. In order to acquire the *odel*-right, it was necessary, in addition, to have a definite declaration from the seller. State property sold to private persons could no longer be invested with the *odel*-right. A conception had been reached entirely different from that of the old sagas when all land given by the king was automatically invested with *odel*-right. Through these ordinances the *odel*-right had lost its original significance and much of its deep ethical value.

The Constitution of 1814, however, brought about the revival of the old rural rights. This law decided that *aasaetesret* and *odelsret* must never be abolished. This showed the spirit of a national revival. In 1857 the period of limitation (*hevdstid*) was extended to 20 years, while a family lost the *odel*-right of a farm, if it had lost its possession for three years. In 1934 this period was extended to five years. The present significance of the *odelsret* and the *aasaetesret* is no longer what it was originally. It rests now primarily in the educational effect exercised by these laws. They give to the generation brought up on an *odel*-farm a certain self-reliance which is of great value, whether they remain on the farm or leave it. This is true both of small and large *odel*-farms. In my own childhood I remember being proud of the fact of living on an *odel*-farm though it was not a very big one. To live on an *odel*-farm, however small, means more than merely making a living.

It is of great economic advantage to the farmers that they can take over a farm at a comparatively low price. This gives greater economic security not only to the owner, but also to the whole family who find in it a safe refuge, if other means of livelihood should fail. We will return to this later on. It may be worth while mentioning in this connexion that in Norway it has been a custom from ancient times that the son who has taken charge of the farm maintains his retired father and partly also those brothers and sisters who remain at home. This can become a great burden and can represent a considerable capital sum. The debt on such farms, however, remains small. The justification of this system is a moot point, but it is quite certain that, in these districts where the *aasaetesret* and this right of maintenance have been developed, debts are very low and the farmers are in a good position. Their customs are the means of preventing an overburdening with debt. Whether they are the best means I cannot say.

If the *odel*-farm has been lost to the family, any one qualified by *odel*-right can demand the farm back again, but this must be done within five years. The repurchase price is fixed according to an official valuation. Up to last year such an *odel*-farm had to be paid for immediately and in cash. It might happen that the debts on the farm exceeded the official estimate of the value. Formerly, the farmer who was trying to get back the old *odel*-farm of his family had to take over the debts of the farm, but according to a recent law he will not have to take over debt obligations in excess of the estimated value of the farm. Furthermore, cash payment is no longer compulsory provided adequate securities can be given. These are attempts to revive the old legal institutions.

Exact rules have been laid down for the order of succession according to *aasaetesret* and *odelsret*. Sons have precedence over daughters, eldest sons and their descendants over younger sons and their descendants. After the death of the farmer his wife holds the farm in joint property with the children.

It is, to my mind, a weakness of the *aasaetesret* that the eldest son has an unqualified claim to the farm. If he knows that he is bound to get the farm of his ancestors, he will not always have the necessary interest to prepare himself properly for the task. I can imagine that it would be better if a testator or valuation committee determined not only the purchase-price of the property, but also the member of the family to whom the property should be assigned.

The mortgage bank founded by the state in 1857 is an institution which has very much helped to strengthen the economic position of the farmers. Its business is to give mortgages on very favourable terms up to 50 per cent. of the value of the property. The beginning of this century saw the formation of a bank for small farmers which lends up to 90 per cent. of the money necessary for the purchase of a small farm provided that the repayments are guaranteed by the village community. Originally it also gave credits for the liquidation of earlier debts.

Thus most of the farms have become freeholds. The desire for freeholds was without doubt a powerful factor in the development of our agriculture. The joy of having property of one's own provides a far greater force for the development of our farming than does the economic profit of these small enterprises. I hope this will last. For men get more out of life if they are rooted in the soil rather than gauging their work entirely by its economic success.

As already mentioned, the *odel*-law has contributed to prevent both the accumulation of vast estates by a few people as well as too much sub-division of the land. Nevertheless, land in Norway is much divided up. Of the 208,000 farms, 145,000 are independent enterprises. Of these 36,000 farms have less than two hectares of cultivated soil and natural meadows. On the other hand, only 20,000 have more than 10 hectares, and only 324 farms more than 50 hectares.

This marked division is due partly to the natural conditions which afford very little opportunity to develop large farms, and partly to the fact that subsidiary occupation on land and on sea is easily obtainable. Only 93,000 farms are without subsidiary occupation of some sort or another, excluding forestry.

You may be interested to hear our conception of the division of land. The general idea is probably that we have too many small farms on which the owner cannot make both ends meet without a secure income from outside. It is true that in good times employment can be obtained both in forestry and in industrial establishments, but in times of depression, as after the War, many of these concerns have to cut down, and the owner of too small a farm is in an especially difficult position. Circumstances often prevent him from exploiting his small piece of land in a satisfactory way. The conception has, therefore, become general that in dividing up land care must be taken that the new farms are large enough to maintain the farmers and their dependent children.

It is one of Norway's most urgent social tasks to try to help the owners of the many farms which are too small for the maintenance of a family to acquire more land. Two different measures are used for this purpose. First, the State helps directly in obtaining more land already under cultivation, and secondly, the State pays a subsidy up to 600 *kroner* for each hectare newly reclaimed. The area which will be brought into cultivation annually by the small farmers with State aid amounts to 1 per cent. of the land hitherto cultivated. The public grants used for this latter purpose are well employed. On the other hand, those grants given at a low rate of interest to small farmers for the purchase of cultivated land are completely wasted. For these small plots are usually so expensive that, even with cheap public loans the burden of interest becomes too heavy for the small farmer.

The absence of large farms does not seem to me to be a defect. On the contrary, the special function which large farms formerly fulfilled, namely, to undertake experiments and to promote technical progress, has now been taken over by the experiment stations and by the farmers' organizations. Farmers have as much influence in these organizations as the bigger landowners. Small farmers have admittedly smaller means for education, the consequence being that in our country large public subsidies are necessary for the education of farmers' sons and daughters. As a result agriculture and the state are none the worse for the fact that ordinary farmers are the spokesmen of the industry in public matters. Farmers working daily in the fields and among the cattle will be on the one hand conservative and on the other hand lend a ready ear to ideas for development and progress, not only in their work, but also in social and political questions. They will not submit to compulsion and domination. The nobility was abolished in 1814, and the Norwegian farmers faithfully fought side by side to break the dominating position occupied by officials and burghers at the beginning of the last century. They were also the most zealous champions of our national freedom both at home and abroad.

To my mind it would be in keeping with our agrarian development if our farms were generally of a moderate size, so as to enable a family to run the farm alone, or with the help of two or three paid workmen. This gives equality and a live spirit in the community. All farmers are socially equal, none envies the other, and, when necessary, they help each other to overcome unforeseen difficulties. Such are the conditions in the district where I was brought up. People live unpretentiously, have a sufficient income and time to enjoy life and to cultivate political, literary, and religious interests. After the War there was no unemployment in the district though many had given up other occupations and had returned to their family-farms. Life at home had been too dull for them in prosperous days, but they were only too glad to have been born on a farm and to be able to go back to it.

In another district of the country there are comparatively large farms with many day labourers. The farmers did very well till after the War and had a rich social standard. They were seldom concerned with the manual work, but were skilful administrators of their property. Farming was on a high level, both technically and economically, and I am not sure that the workers were much worse off than the small independent farmers in my home district. Of course, there existed an almost insuperable division between the large farmers on the one hand, and the small farmers and the workmen on the other. Employers and employees ate separately and had no social intercourse, the result being a deep political cleavage. The larger farmers of this district are usually very conservative, whereas the workmen and small farmers have turned to the opposite extreme and have joined the communistically minded Labour Party. As the workers and the small farmers are in the majority they form the Government whose rule is not always in accordance with the interests of the conservative farmers, a situation which does not tend to improve the well-being of the district. A more uniform distribution of the land would result in a more uniform political and social outlook and would, no doubt, be of value to the whole state.

Big estates are useful in periods in which agricultural knowledge is comparatively rare. These conditions enable the system of large farms to make the best of the available knowledge of methods of production. But technical education is gradually increasing owing to a thorough practical training or as a result of a well-run democratic educational system. These factors, together with the fact that energy and initiative are being implanted in the heart and the head of our people, will necessitate a dividing up of the land into smaller units, if the development of agriculture is going to be happy and harmonious.

The division of land must, however, not proceed faster than the training of sufficient skilled workers capable of taking over the new farms. There is no advantage in inducing a workman, who has only learnt to obey orders, to take over a farm and run it himself. The worker will not be satisfied and the soil is unlikely to be better utilized. We have had very unhappy experiences, especially with newly-established farms, and other countries have certainly had the same experience, in cases where a considerable distribution of land was undertaken after the War. Care must also be taken not to make the farms too small, otherwise we shall have a peasant proletariat in an economic position worse than that of other classes.

A working peasant class, secure on their farms as free masters of a piece of their country's soil, will always constitute the backbone of a healthy social structure. And the more there are of them, the stronger the backbone will be. It is a protection against great political and social upheavals, and for this reason Finland, immediately after its liberation, established 100,000 new peasant farms. At the same time, the farmer class constitutes a firm buffer against economic fluctuations in society. The working capacity of the family farm is very elastic. It can contract in times of heavy demand for labourers in other occupations, and it can expand when these other occupations are hit by unemployment. In the country there will always be a surplus of labourers who have to seek work elsewhere.

If the land is entirely divided between big estates run like any other capitalist concern on the one hand and very small and dependent farms on the other, there will be hardly any possibility of absorbing the unemployed who lose their jobs in other occupations. For the big estates will also be forced to cut down the number of their employees. The small farms, on the other hand, are always struggling with the difficulty of providing room and work for all the members of the owning family. The medium-sized farm, however, can always provide both room and work. Two Americans, Mead and Ostrilenk, in their book *Voluntary Allotment*, give an excellent description of this position. An American farmer of Norwegian extraction had a medium-sized farm and five children. The children received a good education and four of them left the farm. One son got work in the motor-car industry, the other became a high-school teacher, one daughter became a shorthand-typist in an office, while the second daughter married a business man. In the crisis, the motor-car man was dismissed and came home with his wife and two children; the high-school teacher was also dismissed because there were no longer sufficient funds to maintain the high-school; he also came home with his family. Business declined and both daughters came home, one with her husband and child, so that in all four families with seventeen persons had to be maintained by the farm. Accommodation was limited, but all found work and maintenance on the farm. The result was that this family, at any rate, lived on a farm quite comfortably.

'Every day has its own tasks. There is no time for worrying, no hiding in caves, no sleeping at police stations, no vain and wearisome search in the streets for work, no waiting in queues for hours on end, no humiliating questioning by officials, no want, no fear, and no despair, such as haunts so many unemployed townspeople. The whole family is employed and the morale of the young people has apparently not suffered.'

It is just because the medium-sized farms are of such great importance to the whole life of the State that their position must be secured, so that the farmer's family may remain in security on their farm, regardless of the fluctuation of trade cycles. One of the greatest tasks facing us is to find means to prevent some generations from living luxuriously through the increase of values in prosperous times, while other generations suffer hardships, or perhaps, are even driven from their farms because they happened to found a family and to start farming in a period of depression.

Here the *aasaetesret* will give a certain amount of help. If this is carried through correctly, the man who takes over the farm, gets it 20 to 30 per cent. cheaper than if he had to buy it otherwise. The *odel*-right, too, affords a certain security by the fact that even if a man is compelled to sell his farm he has still the chance of buying it back. But these laws do not give enough protection, as is best proved by debt statistics compiled a few years ago. From these it is seen that about one-quarter of the farms are in debt for more than 75 per cent. of the value as determined by the taxation authorities.

A large number of properties have been compulsorily sold up by auction. It may, however, be stated that people are beginning to see more and more the advantages which the provision that the former owner has the chance to repurchase his farm offers to the economic life of the nation. Only one farm in five compulsorily sold has been sold to strangers. In 80 per cent. of the cases, the farm has been repurchased. By setting up a bank with 100 million *kroner*, the *Storting* has now established a debt-adjustment institution with considerable capital. The aim of this institution is to try to bring about voluntary repayment of debts, whereby creditors of comparatively large loans are guaranteed payment if they reduce the amount of debt accordingly. It is hoped thus to overcome the greatest difficulties, but the aim must be to obviate any indebtedness which is solely and entirely the result of fluctuation in the value of money. Any one who can show the way, without damaging the necessary requirements of credit and without making it more difficult than it already is for the poor but skilful farmers to acquire a farm, will be rendering a great service to agriculture.

DISCUSSION ON THE SMALL FARM SYSTEM

G. F. WARREN.

The higher the education of the farmers, the greater the advantages of the family farm; the better developed the co-operative movement, the greater the advantage of the family farm; also the higher the wages in terms of farm products, the greater the advantages of the family farm. Since the long time trend in Europe and America, and in fact in the world as a whole, is for more education, and since a greater amount of wheat and other farm products is required to pay for a day's work than formerly, there is a steadily growing advantage in favour of the family farm. The capitalist farm, or estate system, has therefore a steadily growing disadvantage, or lessening of its advantage.

In the United States, education has been general for some time: experiment stations and extension work give the farmers the information that is necessary for efficient operation. The amount of product required to pay for a day's work steadily increases—it is probably the highest in the world. As a result the farms in the United States are the smallest in the world when measured by the number of workers employed: the farms are smaller than farms in China, smaller than the farms in Denmark when so measured. The acreage per farm steadily increases, but the workers per farm steadily declined until the equivalent for the country is about one family operator, one half another family, one half a hired labourer, or a total of two workers. Farms that hire more than one man for the full year make up a very small percentage of the total farms.

In every country there is a tendency for the Government to take a hand in determining the size of farms, and to make the farm too small; farms should be large enough at least to provide full work for one or two persons when modern tools are used. I think that most of the efforts to create family farms err in making the farms too small.

Another type of farm has always existed, that is, a home for industrial workers with some land attached. This movement has been greatly stimulated in the United States by the invention of the automobile. A second-hand automobile can be purchased for $5 to $15, and a fairly good one for $50. This makes it possible for persons who are employed in industry to live five or ten miles from their work. This is a new and significant development. It should be encouraged around a place where industry would naturally be located, rather than create small farms and then search for an industry to place there. I believe the time ultimately will come in other countries when workers will be able to use automobiles to go to and from their work. This provides the advantages of rural living without creating the inefficiency that comes from farms that are too small. I think that, as economists, we should look forward to giving men an opportunity to work effectively. I cannot sympathize with efforts that are designed to find means of spending more time on a job than is necessary.

COLLECTIVE AND STATE FARMING IN RUSSIA[1]

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WHEN, in the year 1929, a serious fall in grain prices began which resulted later in the fall of cattle and cattle-product prices, all countries realized the necessity, in view of the long duration of this symptom, of going to the bottom of the cause in order to be able to meet effectively and in good time the damage done to their own national economy and agriculture. It was clear that, caused by the previous high level of prices, a gradual extension of grain cultivation in vast territories of the globe had set in—territories which formerly were hardly thought of for grain cultivation and which now, thanks to the perfection of modern technical achievement, were brought into cultivation at an unexpectedly quick rate. These are the semi-arid districts of North and South America, and the vast steppe districts in South Russia. With the help of new technical achievements an enormous increase in production has taken place, a circumstance which, in view of the shrinkage of the purchasing power of the populations of the most important markets, through the World War and its aftermath, was so decisive in the formation of prices that it let loose a serious crisis for agriculture in almost all parts of Europe. For a long time it seemed as if the world's food supply would be put on a new basis. This was sufficient inducement for people to interest themselves in the new possibilities of production, their extent and limits, in greater detail. What would be the consequences of the new state of affairs for the remaining civilized countries?

It is my task to speak here about the new possibilities in Russia, and their practical application to other countries.

I. PROBLEMS OF RUSSIAN AGRICULTURAL ORGANIZATION

The transformation of agriculture in Russia which has taken place in the last few years took the American organization as a model, but the basis of the transformation was different from the American. Whereas, in America, capitalist striving after profit and individual initiative led to the application of modern machinery in completely new regions, the motive power in anti-capitalist Russia was quite different; for one thing there was the faith bordering almost on a religion in modern machinery on the part of the political party dominating Russia, and, secondly, there was the political desire of this party to bring individualist agriculture with its huge number of independent elements into harmony with their own philosophy of life. I met the transcendental faith in modern technical achievement again and again on my journey through Russia, and the *Mechanisazia* was considered the universal remedy for everything. The expectations placed in the mechanization of agriculture were extraordinarily high. It was thought that Russian peasantdom, which had spread considerably after the Revolution and after the annihilation of the large-scale landowning class, was not in the position, in consequence of its inveterate backwardness, to meet modern demands in the production of goods and to keep pace with the achievements of socialized industry. For this the size of peasant farms was held to be too small; their organization was wrong; the small landholdings were too much split up and consequently produced too little; their development was much too slow to meet the growing demands of the town. Only properly organized large-scale farming, with first-rate technical equipment, provided with the latest achievements of agricultural science would be able to meet the tremendous demands put on it by the Soviet Union.[2]

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[1] For the details here given I have used as supporting data, for the most part, observations made by myself in 1931 during a long journey of investigation, as well as the standard literature and verbal reports of German experts. The aim of my remarks is to cast light on the socialist construction of Russian agriculture and its prospects regarded from a scientific point of view. All political prejudices, therefore, must be eliminated.

Thus after the Russian Revolution the number of farms increased from 14 million in the pre-War times to roughly 25 million farms by 1928, but, during the last few years, there has been a period of expropriation first of the larger farmers (*Kulaks*) and then of nearly all the small peasants. The first collectivization of agriculture was to a limited extent included in the first Five Years Plan of 1928. As, with the exception of the poor peasants, the bulk of the owners of medium-sized or large estates were violently opposed to collectivization, it was carried through almost entirely by force, but it was completed more quickly than had been provided for by the Plan. In this way about 14 million peasant farms were transformed into 220,000 collective farms (*Kolchoses*); more than 7 million peasants with a relatively small proportion of the profitable soil remained in existence; 4 million disappeared. Besides this, all unoccupied land and the land of the great landowners (in so far as it had not previously been converted into peasant holdings) was put together into large state farms (*Sovchoses*), of which some 4,200 existed in 1931.

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[2] See *Construction of Collective Farms in U.S.S.R.*, Moscow, July 1931.

The collectivization was carried out with extraordinary rapidity, for which reason alone production naturally suffered much injury. To this was added the resistance of the peasants and of the *Kulaks*. From the autumn of 1932 until the spring of 1933 resistance again reached a peak, only to end with the surprising defeat of the peasantry in the spring of 1933.

The new socialist construction of Soviet agriculture culminated in a transformation of peasant farms into large co-operative farms of a kind hardly distinguishable in principle from the new large state farms. By this step, the Soviet Union has settled for itself the old agrarian problem, more or less evident in all countries, 'Large-scale versus Peasant farms', by a biased decision in favour of large farms. It was expected that large farms properly organized would make exhaustive use of the much-admired technical equipment, resulting in an undreamt of increase in yield and consequently an increase in the standard of living of the masses and an increase in the power of the Soviet Republic. Another decisive factor was that, in this way, it would be possible to transform all peasants into 'agricultural factory workers' and thus to win over new proletarian masses, with a pronounced class consciousness, and new fighters for socialism.[3]

Between the large state farms and the *Kolchoses* there were, and still are, of course, a variety of not unimportant differences. The workers on the state farms are wage-earners, while the workers on a collective farm are its members, the peasants. In practice, however, this difference is no longer very great, because even the peasant farmers are not much more than labourers. The circumstances under which the peasants on the *Kolchoses*, compared with the state farms, might be regarded as unwilling workers, were rectified to a very great extent by the general application of the principle of output or piece-work wages. But the wage-share of the *Kolchos* peasant, since it is dependent on the results of the work done and on the harvest, are much less stable than the piece wages of the worker on the state farm. The state farms, furthermore, have been granted preferential treatment in the giving of credits and in the supply of new machines. State farms always received the newest machines, which they frequently passed on to the *Kolchoses* after a year's use. In the provision of credit to the *Kolchoses*, consideration was given to the extent to which they had fulfilled the prescribed production for the state. As the will to work and the joy in labour had suffered extraordinarily in the

[3] See N. Subow, *Socialist Factories for Bread, Meat, and Butter*, Moscow, 1931.

collective farms, the raising of the prescribed quantities of products for the most part left much to be desired. Consequently, in comparison with the *Sovchoses*, the *Kolchoses* were frequently at a great disadvantage.

The task of modernizing the *Kolchos* enterprises rested in the first instance with the M.T.S., the machine and tractor stations, to which, besides the political management, a group of experts is attached, consisting of an agronomist, a plant-breeder, an animal-breeder, a veterinary surgeon, and an engineer. Moreover, the arrangement of the work of the *Kolchoses* was worked out in the greatest detail, each man being given his function. The division into working groups or brigades is well known, as also the original valuation of work done according to various principles, e.g. according to the capital brought in, according to the needs of the member, and according to the output of work. To-day the principle of payment by results as expressed in the piece-work system is in general acceptance. The apportionment of the output between the state, the *Kolchos*, and the individual members is made according to a somewhat complicated plan. An investigation by one of my pupils, Dr. Mentzel, showed that in the district examined one-third of the total output went to the state, one-third to the collective farm for the future carrying on of the farm; one-twelfth into the funds of various societies, and the remainder, only roughly one-quarter of the output, went to the *Kolchos* members who thereby eke out a very modest existence.[4] In order to strengthen the interest of the *Kolchos* peasants in increased output, the state shares were definitely fixed and the subscriptions to the various funds were restricted, so that there remained a larger share for the *Kolchos* peasant, the surplus of which he can dispose of on the open market. The small private business of the *Kolchos* peasant has also been somewhat extended from its former minimum. But the possibilities of free sale are comparatively limited as the imperative demands of the state requirements have to be met.

Apart from this the mechanization of the *Sovchoses* and the *Kolchoses* is carried out on the same principles, though the *Sovchoses* are, as already mentioned, better equipped with tractors; the latter not infrequently take over the cultivation of fairly large areas for *Kolchoses*, which in addition to tractors use horse teams (unfortunately much neglected during the transition period) for the field cultivation. For the *Kolchoses*, machine and tractor stations (M.T.S.) have assumed great importance. On the basis of special agreements with the *Kolchoses* they carry out the tillage, sowing, and harvesting on the *Kolchos* farms.

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[4] See H. E. Mentzel, *Organization of Labour and Distribution of Output in the Russian Collective Farm.* New German Investigations, Berlin, 1934.

If at first the *Kolchos* farms functioned badly, it was not due merely to lack of the will to work nor of interest in labour, but also to the fact that tractors were not available in sufficient quantity. On the other hand, ploughing teams had been partly done away with by collectivization, the animals having been slaughtered and those remaining not properly looked after.

The result of the better equipment of the state farms with machines and other requirements was, first of all, that the area under cultivation increased with extraordinary rapidity; thus the extent of the *Gigant* in the year 1929 was given as 60,000 hectares, in 1930, 160,000 hectares, in 1931, 235,000 hectares.

The main trouble of the new large farms was to get suitable farm managers. This condition was more important for the state farms than for the *Kolchos* farms, as on the latter in most cases peasants entrusted with the work saw that it was done properly, even if unwillingly. In America, the pioneer country of mechanization, this consideration played a negligible part, as a quite different policy was pursued in setting the boundaries of the large farm (rarely above 1,000 hectares). There were not enough farm managers for such a large number of big farms; they had to be trained very quickly, as had the technical managers of the *Kolchoses*. Hence the extraordinarily large number of students at all agricultural colleges. There were 12,000 students at the School of Agriculture near Moscow in 1931. Although there were well-qualified Russian agriculturists of the old school, no trust was put in handing over the state farms to them as these men were looked upon as counter-revolutionaries. It was naturally worst when the management of large farms was handed over to party functionaries to whom, at the best, a trained agriculturist was attached.

A further difficulty in such far-reaching mechanization consisted in the Russian peasant and land-worker not being sufficiently experienced in dealing with sensitive motors and large machines and, as a result, many breakages occurred. The machine cemeteries on Soviet farms became uncommonly extensive; the repair workshops on the Soviet farms we visited were like big machine factories. In this respect, too, the American examples were much better off as there was any amount of qualified workmen.

Another difficulty was that through the centrally planned economy —all instructions being issued from Moscow—much friction and many stoppages occurred; the more strictly the plan was administered, the more people tried to stick to the letter of it. Men who kicked against the ordinances were dismissed.

A good many breakages were due to the inability of the peasants and labourers to manage the large machines, but also to the fact that the home agricultural machine industry was in its very early stages. The machines delivered were frequently bad. With its highly developed industry, America, the pioneer country of mechanized agriculture, was in a much better position.

Next to the farm-manager question, the drastic specialization, most strikingly seen in the division between crop-growing agriculture and cattle-rearing, but which originally extended to every single branch of farming (*Rayonnierung*), had the most disastrous effect on the new Russian state farms. A distinction is made on the *Sovchoses* between exclusively grain farms, cattle-rearing farms, sheep-rearing farms, pig-breeding farms, &c. The collective farms, on the other hand, are mixed farms on which the various branches of agriculture supplement each other, as is customary in peasant agriculture. In the *Kolchoses*, of course, the stock is largely kept in special stock farms, cattle farms, sheep farms, &c. Yet more than half of the total stock is in the individual care of the peasant, most of the remainder being on the socialized stock-farms of the *Kolchoses*.

Agriculture, especially grain farming, is the primary interest of European Russia. The development of grain farms is the first charge both of the Institute for Mechanization at the Lenin Academy in Moscow and of the Agricultural High School, the former Timirjasew Academy, near Moscow. For the most part the new Soviet state farms were, at first, completely one-sided. The monoculture thus established facilitated the use of large machinery, but very soon, even by the time of my visit in 1931, the Soviet state farms realized that a regular succession of crops was imperative. Thus, on the *Gigant*, a five-course rotation of crops was instituted. (Fallow, winter wheat, summer wheat, hoed crops, half winter and half summer.) On the *Werblud* the rotation of crops was fallow, winter crop, summer crop, that is to say, the old three-field system, a specialized system of grain farming for which, on heavy soil, fallowing is indispensable. In order to facilitate the administration of large areas from one centre, the big Soviet state farms, *Gigant* and *Werblud*, were divided up into districts, each of about 10,000–14,000 hectares. With regard to stock farming, herding of stock in special cattle farms, often badly managed, increased the danger of epidemics which have caused considerable reductions in the numbers of Russian cattle during the last few years. Further serious losses in cattle were caused by the fact that, in the forcible collectivization, many were slaughtered. The stocks of horses, sheep, cows, pigs, and goats dropped by more than 50 per cent. up to 1933 in comparison with the figures of 1916 and with the still higher figures of 1929, and the live-stock output has also sunk considerably.[5] Thus, there has been since 1931 an extraordinary shortage of meat and other cattle products. The authorities seemed to have realized already in 1931 the danger to the people's food. Thus Subow said:

> 'The splendid successes in the setting up of Soviet farms have, in the main, secured a solution of the grain problem. Now that we have overcome the difficulties of the grain supply, we can proceed to the socialist reconstruction of cattle-breeding. The problem of cattle-breeding is the main issue of the near future. All the forces of both the party and of the working class will be devoted to the setting up of tremendous cattle-farms.'[6]

We may say that the forcible collectivization had truly disastrous effects on the live-stock farming; with crop-farming, the quick pace of collectivization and the completely inadequate solution of the question of farm managers, especially on the Soviet state farms, brought with them serious setbacks; the yield per hectare sank and the weeds grew apace in the fields.

As, in spite of the setbacks, the Soviet Government has not departed from the measures adopted and obviously is not inclined to do so, we must ask ourselves especially from the point of view of central European economy: What are the inner foundations of methods of the new Russian economy? What are the pros and cons of the system of the Russian large-scale farming as seen on the one hand in the *Sovchoses*, on the other in the *Kolchoses*?

2. A CRITICISM OF THE NEW RUSSIAN SYSTEM OF FARMING

A German will inevitably ask with surprise: How is it possible to neglect cattle-breeding to such an extent as in Russia and even to take away a great part of the cattle from the individual care of the peasant? The explanation is that in the Soviet Union the authorities obviously had a very strange conception of agriculture, one quite different from that normally held elsewhere. The general opinion in central Europe and in the various other countries is that agriculture and cattle-breeding are most closely related and that farmers must be directly interested in the welfare of the cattle. In the factory-like transformation of agriculture with its use of large machines (tractors, reaping and threshing machines, motor-lorries) we can see the peculiar Soviet conception of agriculture. But we cannot be satisfied with this explanation. The peculiarity of Russian conditions forces us to arrive at another judgement. On the Soviet state farms and on the farms of the *Kolchoses* most of the land is very fertile, even partly virgin soil. A great proportion of the actual grain-growing areas are located in the Black Earth Steppe country, as well as on the frequently no less fertile Podsol soils. On these fertile soils it is not nutrients but water which plays the main part. Water, not as with us nutrients, is for the most part the limiting factor. On such soils, a one-sided kind of cultivation, a sort of monoculture is technically possible, as the replacement of nutritive materials can be neglected. This is absolutely contrary to German agricultural production. For many centuries we have harvested crops from our cultivated soil, and this compels us to exercise a special soil-economy culminating in crop-rotation, whereby, besides market crops, above all grain, we also cultivate such crops as are consumed by the cattle, providing dung as a by-product, with the help of which the fertility of the soil is constantly maintained. In Germany, therefore, stock-farming and agriculture are interdependent, and besides grain we have to cultivate hoed crops and fodder crops in order to make the live-stock business possible. For this reason large implements and machinery, suitable only for monoculture, are automatically cut out and above all it is impossible to neglect the cultivation of fodder, as in European Russia. We need in Germany general purpose implements and machines and we cannot do without the peasant's hand-labour in the cultivation of plants and in the rearing of animals.

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[5] See O. Schiller, 'Agricultural Production of the Soviet Union', *Reports on Agriculture*, Berlin 1934, vol. 19, chap. 2.

[6] See op. cit.

However amazing the centralization of Russian national economy may appear at first sight, and however great the increase in the use of power resulting from it may appear, such a procedure is completely inapplicable to German conditions. For Russia, it is only a question of time how long such agriculture is possible without replacement of soil nutrients. No one can prophesy to-day as to this period of time. I was told on the *Gigant*, four to five years, on the model farm *Chutorok*, perhaps thirty to forty years. Whatever the truth may be, the time will certainly come for Russian agriculture, when a transition to rotation of crops and to a close combination of agriculture and animal husbandry will become necessary. It may be that Russians will not be satisfied, as of old, with the minimum yields which can be achieved for many years without manuring, which is the yields resulting simply from the natural regeneration of conditions necessary to fertility (cf. in this connexion the experiments carried on over many years at Rothamsted). The individual peasant farm, however, has, so far, proved superior for cattle farming, and even Russians have not yet shown us how to build up a productive cattle-economy with agricultural state labourers on the Soviet state farms.

While our prediction as to the live-stock enterprise is unfavourable since all experience shows that the anxious care of the self-interested peasant is absolutely essential, a somewhat more favourable opinion can, for the time being, be formed about the future of crop farming and especially about the cultivation of grain. Various circumstances point to the fact that Russia has realized the vital importance of the farm-manager question in the administration of Soviet state farms. It has also been realized that there are limits to the practical efficiency of the farm manager. Such huge farms as the *Gigant*, the *Werblud*, and also *Chutorok* simply cannot be administered from one centre and by one manager. Such bold ventures are doomed to failure from the outset. The division of the *Gigant* and the *Werblud* into smaller farm-units points to a realization of this. The manager of the former German concession-farm *Drusag*, Dr. Dittloff, incidentally calls attention to the fact that on his 11,000 hectare farm he had, in addition to his office work, to cover roughly 60 km. twice daily by car in order to see even something of his farm. On the same basis, the manager of the *Gigant* would have to cover at least 1,500 km. daily in order to keep in touch with his farm. Dr. Dittloff thinks only an aeroplane could cover this distance. I was told in administrative quarters in Russia, with express reference to the farm-manager question, that the most practical size of a farm was one of 12,000–15,000 hectares. The engineer in charge of agricultural machinery considered 60,000–70,000 hectares as the optimum, as that would allow for a complete use of large machinery. Dr. Dittloff considered the size of the *Drusag*—11,000 hectares—to be the utmost a manager with the help of modern means of transport could just reasonably supervise. According to a recent law of 1932, farms are limited to 40,000 hectares with sub-divisions of about 8,000–10,000 hectares.[7]

At this point there arises the consideration of the economic returns. The idea at first prevailed in Soviet economy that no attention need be paid to economic returns. The business manager therefore played a minor part, the agricultural engineer being everything. But a change in opinion was clearly visible as far back as 1931. It was recognized that accountancy was indispensable, for a great part of the machines had to be bought abroad and paid for with foreign currency, obtainable only by the export of Russian agrarian products, mainly grain. The drawing of grain from Russian agriculture went so far that the peasant population's standard of living was, in parts, brought down far below the minimum of existence. Dependence upon foreign agricultural machinery inevitably compelled a keen attention to accounting. As the home soil is not inexhaustible in its yield, Russia had to try to buy foreign articles with as little sacrifice as possible of home agricultural products, or, still better, to do without this foreign supply altogether.

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[7] See also O. Schiller, 'The Agricultural Problems of the Soviet Union, 1931/32', *Reports on Agriculture*, 1932, vol. 16, chap. 3.

Although to-day they have now achieved the latter goal, i.e. the import of agricultural machinery being no longer necessary, and an attempt is being made at reckoning economic returns in Russia, the position is that the costs of work—which consist of a certain amount of bread—are low, and the cost of capital, covering the expenses of replacing the buildings and machinery are ultimately also costs of work. As buildings have been taken over as they were, without much change being made, and for the time being very little is being done to them, accounting, in effect, covers the cost of mechanization, which is being paid for by the lowness of the workers' subsistence minimum (1 kg. of bread per day) as well as by the direct wage-cost itself.

It is extraordinarily difficult to carry out such a calculation for the separate farms for the simple reason that Soviet state farms, as stated, do not defray the expenses of a real amortization for the machines, but only the interest. Naturally, as machines are later used in the *Kolchoses*, the costs of amortization must ultimately be included in the calculations.

Production costs in Russia are all the lower, the lower the repair-costs of the machines can be kept, i.e. the lower the labour costs, which is to say, the lower the subsistence minimum. When, within recent years, Russian dumping on the world grain market was being discussed, this aspect of the relatively low costs of production should always have been taken into consideration.

Whether or not the expectations placed in the new large-scale farms—whether *Sovchoses* or *Kolchoses*—will be realized, depends, in addition to the problem of farm managers, on the will to work and the interest in the work which people can permanently engender under the conditions mentioned. It is a vital matter for Russian agriculture how far it will succeed in overcoming permanently the passive resistance of peasants whose farms have been forcibly collectivized. As, after the surprising increase in work done since the spring of 1933, the judgement seems to have fallen definitely in favour of collectivization and as a tremendous increase in the production of Russian agricultural machinery and tractors is going on, it will be necessary in the near future to reckon with progress of production—at any rate in crop-farming.

At present there remain as unfavourable factors: too much red tape in the centralized economy; the peasants' lack of interest in their work and, in conjunction, the poor output of work and the lack of care for cattle and for buildings and equipment.

If, therefore, we prophesy more favourably for crop-farming than for live-stock farming, this can be regarded as a *plus* only in comparison with the utterly backward peasant economy *before* collectivization. The above-cited defects of the new agriculture show clearly that 'trees do not grow in heaven'. The fear is accordingly unfounded that Russian grain exports may become a serious danger to the world market, and that, in its wake, Russian national economy will increase to such an extent that it may crush western-European economics. The ruling class of present-day Russia wants a factory-like transformation of Russian agriculture, and people originally spoke of 'grain factories', 'meat factories', 'butter factories', &c. Russian agricultural economy, ultimately Russian national economy, must inevitably come to grief on this basic attitude. Russian agricultural products are mainly dependent on the weather, more so in such a primitive, agrarian country than in agricultural countries with a high civilization. The neglect of cattle-rearing, however, and of its basis, as well as the impossibility of creating a high-class cattle economy with a proletarian rural population, on the one hand, deprives Russian economy of the possibility of investing the surpluses of farm products in good years in the most practical way, namely, in live stock, and, on the other hand, will always jeopardize the people's food in bad harvest years, because the greatest food reserves in an agricultural country lie in the cattle economy, and in Russia the live-stock business shows only an impaired capacity.

The means for improvement always keeps forcing itself upon us—return to individual peasant farms. There can, however, be no talk of returning to the old, primitive form of peasant farming. Modern technical equipment and the education of the rural population in its use must be kept up even if to-day's path of agricultural economy be quitted; a transition must be made to the individual peasant farm by applying the mechanical cultivation of the soil co-operatively, as we see it in *Tos*,[8] a stage preceding collectivization.

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[8] Stands for the co-operative society for the communal cultivation of the soil.

Mr. Münzinger's report shows what importance modern cultivation of the soil with the co-operative use of machines can have for the peasants.

I would point out, in conclusion, that we cannot set aside the most prodigious experiment hitherto carried out in the history of the world, the reorganization of Russian agriculture in our own time, simply with a shake of the head or with contradiction. This experiment can only be understood when judged by Russia's particular conditions and we can take a good many hints as to what is technically possible and not possible, what is economically admissable and what is inadmissible. If with Russia and also the socialist enthusiasts of other countries in mind, we have to refuse to over-estimate the importance of modern machinery in agriculture (I recollect for example that August Bebel, like present-day Russians, over-estimated the value of technical equipment in agriculture), let us nevertheless, in view of peasantry's hard fight all over the world, consider it as a specially important task to give the machine the place it deserves in individual peasant farms, namely, that of lightening the work for peasant man and woman. Machinery ought to be in the service of the farmer's house, farm, and field purely as working equipment for the farm and not as a piece of magic, compared with which man's efforts and strivings necessarily pale into insignificance and from which miracles in the service of mankind might be expected. Whereas, with us in Germany, the machine is destined to serve the individual farmer in agriculture and is given to him as an instrument, in Russia—as with us in other spheres, e.g. traffic and industry—machinery dominates the whole system of production and that we decline to have for our agriculture.

FUNDAMENTAL PROBLEMS OF COLLECTIVE FARMING

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IN taking part in the discussion to-day it will be my task to discuss some of the fundamental questions of collective farming. I shall base my statements on the experiences of the Soviet Union on this question. It will, however, not be my task to state whether the collective system in Russian agriculture is good or bad. One will only be in a position to judge the collective system when it is possible to see not only the economic effects of the new system on Russian agriculture, but also its sociological and biological effects on the Russian people. The latter will be of decisive importance for the judgement of the collectivist system. But they are not decisive for the question whether or not this system will prevail in the long run within the Soviet Union.

In linking up this paper with the programme of to-day I wish to lay stress on three essential points.

(i) Does peasant farming still exist in the Russia of to-day?
(ii) Are the collective farms to be regarded as a co-operative form of agriculture?
(iii) Is there an analogy between collective farming and peasant farming from the point of view of management?

The first question has been illuminated by the figures given by Professor Lang. According to the Soviet statistics there are still more than 5 million farms individually managed in Russia, that is, more than 25 per cent. of the total number of farms. As to their economic significance, however, these individual farms have no importance. Only in central and northern Russia is there a large number of peasant farms still in existence in their old form. In the districts of southern Russia, on the other hand, where collectivization has gone farther, the individual farms left over are merely extremely poor farms. Each year they will get the land, usually the poorest, which has not been taken under cultivation by the Soviet of the village. They will have to cultivate it according to the plan made for them. These farms have not yet been changed to collective farms, only for the reason that it would not pay these individual farmers to go into the collective system, since under the present bad living conditions they would not gain by giving up their poor 'individual' farms. For the Soviet Government, on the other hand, these farms are not important enough to break up hastily at the present time. But it will be only a question of time until these farms too will be definitely eliminated. One may definitely assume that at the end of the second Five-Year Plan, that is, in 1937, the peasant farm will have disappeared throughout the wide area of the Soviet Union.

Even to-day the Soviet Union may be regarded as a country which has almost exclusively concentrated its agrarian activities on large-scale farming. The type of large-scale farming now predominant in Russia is not to be found in any other country. The fact that one of the largest farming countries of the world has its specific type of farming is reason enough for an International Conference of Agricultural Economists to consider such new forms in the structure of agriculture. The specific problems of this new type of large-scale farming may help us to gain valuable scientific information and it may serve to complete our scientific conceptions and ideas of the problems of the structure of agriculture.

It is quite a task for scientific terminology to draw a clear-cut distinction between agricultural co-operative societies and collective farming. There are different stages of development between these two forms of organization, a characteristic example of which Professor Münzinger has given you in his paper. In general one may assume that the step from a co-operative form of organization to the collective form of organization has been taken when co-operation encroaches on production by the nationalization of the land. In the first stage of agricultural collectivism in the Soviet Union the so-called land-co-operatives for co-operative cultivation of the land played an important part; they should be regarded as transition stages from co-operative to collective organization. At that stage cultivation was generally done collectively, but harvesting was done individually. But collectivism was gradually developed further; it came to cover not only the draught animals, but also the major part of the live stock and all implements and machinery. Finally, on some farms even consumption had been collectivized and thus the extreme form of collectivism, the so-called agricultural commune, had been reached. Almost all the communist units have lately been brought back to the middle form, to the so-called agricultural *Artel*. This *Artel*, a withdrawing from Communism, is the new type of farming, determining the structure of agriculture in the Soviet Union.

For the definition of collective farming, however, these changes within the internal structure of the farm, that is to say, the more or less advanced degree of socialization, are not alone the decisive factor. The position of the farms within the whole economic system, the place of collective farming within the general system of planned economy, is at least as important. There were two ways to reach that aim in the Soviet Union:

(i) The way of co-operative development towards co-operative life and towards independent co-operative initiative.

(ii) The bureaucratic and compulsory way of strict governmental regimentation and far-reaching centralization.

In the first case one would have had to let the new collective farms have their own way by giving them a chance to develop according to their own capacity and their own productive achievements. In such cases it would have been necessary to give them general rules for farm organization and cultivation and to guide them in the right direction by official farm advisers. For the rest the demands of the state would have been confined to the official taxes in products and money, and it would have been left to the farmers to make their way by their own responsibility and by their own co-operative initiative. By giving a share in the output to each co-operative farm, the members would have had the possibility of improving their standard of living above the level of neighbouring farms through increased efficiency, increased returns, and through general improvement of the farm. This way of procedure was discarded very soon in the Soviet Union. Through installation of the so-called machine and tractor stations, governmental control centres were built up in the country, from which the collective farms belonging to them are administered by governmental rules and orders through government officials. Thus true co-operative life and the co-operative initiative have been largely killed. The extreme bureaucracy which came into being is one of the weakest points of the collective system in the Soviet Union. The manager of a collective farm does not act any longer on his own responsibility and according to his own agricultural experience and knowledge, but he relies on orders given to him by his superiors, viz. from the machine and tractor station, and finally, if important questions are at stake, from the central powers in Moscow.

To give an example: He does not begin cultivating or harvesting the fields when he himself or the collective farmers think it is the right moment, but only when he receives the order from his superiors to do so. This makes for a great deal of disturbance and damage. The continuous ordering about of the farmers by the machine and tractor station, and also by the different bodies of government administration, is one of the chief causes of mismanagement to be observed so often and also of the general discontent of the farmers.

The farmers would be happy if they were left alone on their collective farms, if they had only to pay the necessary taxes, which certainly are not small. For the rest they would like to look after themselves and to see their well-being depending on their own collective efforts and achievements. But the present system wants to break them into prosperity and thus much harm is done to them. This rigid control of collective farms, their being forced into central government organizations, has taken away from them the characteristics of co-operative organization much more than the far-reaching socialization of the means of production has done. The collective farms in the Soviet Union are to be regarded as semi-state bodies which are tightly fitted into the system of government controlled and planned economy.

The members of a collective farm, owing to their joint ownership of the means of production, have greater freedom to decide upon the management of the farm and the use of those means than have the workers on purely state enterprises such as the state-owned farms. But that is not the real difference between the two groups. The essential difference is merely the method of payment of the people working on these farm types. In the state-farms, wages are paid according to fixed rates for day and piecework, while the wages of the members of a collective farm are determined by the net output.

I wish to lay some more stress upon this essential difference between state-farms and collective farms, because it is important for the understanding of the peculiarities of this new type of farming and because it shows an interesting analogy to the peculiarities of peasant farming. In collective farming the different processes of the work to be done are valued according to their importance and physical exertion. Every branch of the agricultural work has its norm fixed according to plan. At the end of the working day, the working hours of which are not fixed, each member of the collective farm gets booked to his account, according to the quantity and quality of his work, a certain number of units, so-called 'day's work'. At the end of the year the net yield of both products and money will be divided by the total of 'day's work' done on the farm and thus the value of the work unit, i.e. the 'day's work', will be obtained. The more units the individual member has earned and the higher the units have been valued, the higher his annual income will be. The annual income of the members of the collective farm is, therefore, dependent not only on their achievements of work, but also on the net output of the farm. If, for example, there are on a farm at the end of the year 20,000 kg. of grain for distribution among the members—at present cash wages are still unimportant—and if the total number of the units worked on the farm is 10,000, the value of one unit of work should be 2 kg. of grain. A collective farmer who has earned 100 units during the course of the year would thus receive 200 kg. of grain. If additional work is done to improve the farm, work which requires no capital investment (for example, building of a stable, a barn, laying out irrigation, &c., by using clay, straw, timber, or other building material taken from the farm resources), then the number of units of work will increase accordingly, without increasing the net output. Instead of 10,000 units of work say 20,000 units might have been reached, but the net output would remain 20,000 kg. of grain. In this case the value of the single unit of work would be 1 kg. of grain. The individual collective farmer would have performed, however, 200 units a year instead of 100 units. He receives, therefore, instead of 100 units of 2 kg. each, 200 units of 1 kg. each, that is, the same 200 kg. of grain he would otherwise have had.

I want to show by that example that the collective farm, by its special method of paying wages according to the work done by the individual member and according to the net output of the farm, has the potentiality of getting out of its members additional work for the improvement of the farm, without additional capital investment and without a decrease in the total annual income of the individual member. This method of management bears an analogy to that of the peasant farm. The peasant farmer has also the opportunity of improving his farm by additional labour. He increases the value of his farm without calculating the essential factor, his own labour, as an expense in the same way as a farmer working with hired farmer hands would have to calculate.

There is still another factor entering in. A low productivity of labour does not mean a debit on the books of the collective farm, as long as the net output is not curtailed thereby. If, for example, the members work so badly that it is necessary, in order to get through with the work, to employ women and children on a large scale and to spend more 'day's work', there will be a large number of cheap units instead of a small number of valuable ones. Thus the total income of a family will always average the same, provided that the total yield of the farm is not lowered by the poorer labour. If a crop failure occurs, that does not mean a burden to the farm for the following years in the form of indebtedness. The result will only be a decrease in the income of the members for the current year, i.e. a decrease in their standard of living. This also offers an analogy to the peasant farm in its usual form.

The pre-requisite of the gradual improvement of collective farms by additional labour of the members is that additional or unutilized working capacity is still available. Additional working capacity will always be available for such improvements as long as such work can be done during the winter or during slack seasons. In Russia the farmer during a greater part of the year has normally little or no work to do. In the collective farms, at present, the average amount of labour per man is but 150–200 working days per year. As a rule, therefore, a great reserve of labour capacity is still available in Russian agriculture. During the last few years, however, conditions have rapidly worsened. Forced industrialization, the flight from the agricultural districts into the towns as a result of collectivization and bad conditions of living, and finally the effects of the crisis in food supplies, very marked last year, have caused a great dearth of labourers on many farms.

The possibility of improving the farm, without adding to its debit account, by the use of available but hitherto unemployed labour of the farm, together with the automatic adaptation of the income to the yield and the possibility of overcoming bad harvests by lowering the standard of living—all these characteristics provide a collective farm with greater elasticity and with greater immunity against the crisis. Here we find the collective farm in contrast to the enterprises run by the state and in the same position as the old peasant farm. The principal differences between the collective farm and the peasant farm are, however, the abolition of private ownership of the means of production, the blocking of private initiative, the weakening of the deep spiritual attachment to the soil, and the destruction of ethical and moral values of the peasant family-farm.

But the difference most strikingly felt by the Russian farmer is the abolition of economic independence and economic liberty and the transformation of independent farmers into an agrarian proletariat without any will of their own and entirely by government order.

Only the future will show what effect that fact will have upon character, birth-rate, health, and outlook of the large masses of farmers of the Soviet Union. A judgement of the new, unique structure of agriculture in Soviet Russia will be possible only after these effects have become fully evident.

AN EXPERIMENT IN CO-OPERATIVE MACHINERY-EMPLOYMENT BY PEASANT FARMERS

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THE peasant family who cultivate their farm themselves want nothing else than as high an income as possible from their work, an income which permits of a decent life, which keeps the farm in the family, and out of which savings may be effected for the education of the children leaving the farm. The smaller the farm and, at the same time, the more unfavourable the climate, soil, and economic location, the harder it is for the peasant family in general to achieve the above aims by means of their own labours. Thus, peasant farms under such conditions of production will be sufficient for the complete maintenance of the owning family only if they are comparatively large. With too small an area, and without extra earnings, even with the hardest work, the peasant family can do no more than eke out a meagre existence.

But not only soil, climate, and economic location determine the extent of surface which is sufficient for the upkeep of the peasant family and determines their standard of living. There are other obstacles which have to be considered, especially in districts of good economic location with favourable soil and good climatic conditions. These are generally the consequences of the peculiar hereditary division of the estate. We must note, therefore, at the beginning the senseless splitting up of land and the scattered position of the small allotments, which bring with them an enormous waste of work and minimize the success of that work, all the more so when the peasant family tries to fight these aggravations with the work of their own hands.

There is a district in Württemberg in which the average size of all allotments is only 9 ares (1,076 sq. yds.), and in several other districts they vary from 10 to 15 ares (1,196 to 1,794 sq. yds.). The many small allotments of a peasant farm are scattered about over very large areas, and for this reason the peasant loses 30 to 40 per cent. of his working time in going to and from the village and the separate allotments. It is necessary to get a clear idea in figures as to what the effects of such conditions are.

For this purpose I should like to take the example of a peasant farm which I examined myself and which, for Württemberg, has the fairly large size of 30·27 hectares (about 75 acres). The number of its plots is 162. The average size of a plot is 18·8 ares (2,248 sq. yds.). The size of the smallest is 0·73 ares (87 sq. yds.), the largest 124 ares (14,880 sq. yds.). The total distance of all the plots from the house amounts to 206 kilometres. If the peasant had the idea of going from his house to every plot and back, he would have to cover 412 kilometres. Of course, he does not want to do so, as he can reach one plot from another without having to go back to the farm. Yet these figures show what waste of time such splitting up of the peasant property accounts for and how considerably it must reduce the success of the work of the peasant family.

What minimizes the success of work is not this big loss of time alone. The marked splitting up is for other reasons as well the greatest obstacle to the progress of the peasant farms. The fight against weeds is greatly aggravated and the necessary standardization of agricultural products for the purpose of better marketing cannot be carried out at all. The progressive peasant is almost powerless against the damage done to the crops by weeds and obnoxious vermin which come to his plot from those of careless neighbours.

In the communally owned fields of the village, which are as much divided up, the difficulties put in the way of labour-saving, labour-cheapening machines are especially great. The small allotments either completely exclude the use of most machines, or, on account of the smallness of the farm, the machine is too little used to be economical, especially as the wear and tear caused by continually taking them from one allotment to another is unusually heavy.

Attempts have been made for nearly fifty years, through the reorganization and consolidation of holdings, to combat these difficulties of the peasant agrarian constitution, often in the teeth of powerful opposition in the districts most needing this concentration. The opposition has arisen out of a predilection for the inherited ancestral soil, and a dislike of paying the hitherto high costs of consolidation. Thus, the process has been extraordinarily dilatory in the states which need it most, and Mr. Henkelmann states that the necessary consolidation would take Bavaria 165 years, Württemberg 110 years, and Baden 160 years if it continued at the slow rate hitherto prevailing.

The new Law on the Consolidation of Land Holdings of 1934 makes the process exceptionally easy, and strongly stresses the putting together of small plots, whereas in the past, people were satisfied with the regulation of paths. Above all, it lowers the expenses of the process by the fact that the expenses of the surveyor and of the Agricultural Settlement Office (*Kulturamt*) are taken over by the State Exchequer, and the owner of the property has only to pay a small additional sum per hectare of the area thus dealt with. It is hoped that thereby the process of consolidation of holdings may proceed apace and that, above all, the peasant will gradually realize that the whole difference in the quality of the soil forming the plots of one of these split-up holdings cannot have as much influence on the results of his labour as the proper consolidation of the plots would inevitably have.

It has always seemed to me that further steps would have to be taken in order to give the peasant a fair return for his work. One of the most urgent measures would be to combat the over-burdening of the peasant woman, and to mitigate the hurry and haste which in many places constitute her working day. It is obvious that methods and arrangements must be found which are capable of making the work easier and speeding it up without causing unemployment, devices, for instance, which help to solve the problem of the peasant woman.

I see this problem of the peasant woman principally caused by her double round of duties, as mother and as co-worker, and the lack of proportion between these duties and her strength, which in a few years turns the radiant and vigorous peasant girl into an old woman. If the peasant is to be, and to remain, the transmitter of racial qualities and of healthy blood, and if it is demanded that the peasant woman shall bring many and healthy children into the world, then both must be relieved as far as possible from what frequently is one long daily hustle and haste, which limits their standard of life to a very great extent. It is this unhealthy situation which only too often induces the peasant woman to devote her time to the work on the farm, rather than to looking after her children. For she believes that this work is essential for the material maintenance of the family, and thus she neglects her maternal duties.

Furthermore, I think it necessary to provide the small farm with as many facilities in production as possible, to increase the farmer's chance of saving, and thus give him a broader and more secure basis, to-day particularly when so many relatives from all classes of society stream back to the peasant farm, and demand bread and work, a demand which can only be met by an increase in the net yield. Thus a reduction in the burden of work, so far as that is economically possible, and an increase in the output, so far as that is technically possible, seem to me to be the most necessary improvements for many peasant farms.

It was in order to find such ways and means that I undertook an experiment lasting nearly four years in a village of Upper Swabia. This experiment has now been taken over as a rural co-operative society, and is voluntarily and independently managed by the peasants themselves. In this meeting, I need hardly stress the fact that this experiment has nothing to do with the Russian procedure and with th ebolshevization of the peasants; furthermore, equally a matter of course, there was no underlying intention of using machines in order to put members of the peasant family out of work. Its purpose was the maintenance and improvement of the peasant property, and of a peasantry rooted in the soil.

Ultimately, the attempt was nothing other than the introduction of the co-operative idea into agricultural production, not merely into farm purchases and sales, and the extension of this idea to many sides of farming which hitherto had been wasting the strength and time of the peasant woman. This experiment may further be described as a way of influencing, permanently and without compulsion, the peasant's technique towards an increase of the net yield and the alleviation of work.

It was far from my intention to infringe in the slightest upon the peasant's idea of ownership, and I have protected his individuality as far as it was compatible with his interests. Of course, the introduction of the co-operative conception into the peasant's methods of production means that no one can any longer do entirely what he wants and as he wants.

But is this not true in every case where people desire to go ahead on the co-operative way?

First of all, it is clear that the co-operative supervision of peasant's work, especially as far as it is concerned with the cultivation of crops, must be adapted to the needs of the village community, and that it is necessary to provide certain preliminary conditions for the co-operative use of machinery. Where machinery is to be used co-operatively, the way for such use has, first of all, to be paved. The much split-up property, the smallness and the scattered position of allotments, do not make for the co-operative use of machinery. The first thing which may be reasonably asked for is that the machines finish work everywhere in good time. The shorter the time during which the work with the separate machines has to be done, and the fewer the number of machines of the kind in question owned by the co-operative society, the more difficult it is to meet this demand. It must under all circumstances be avoided that a member of a co-operative society can say with justice that he could not finish his work in time because the machine arrived too late.

In this respect, the co-operative use of machinery is first and foremost a problem of leadership, and the leader must never be fighting a defensive battle against the difficulties in the use of machines, but he must always be on top of them. He has to make his plans in advance. The shorter the periods of time in which the different machines may be used, the more skilfully he must plan to divide up the different work, so that, by starting early and using the machine unintermittently, the work is finished in the proper time.

In order to do this, allotments under the same kind of cultivation must as far as possible be put together, and the same rotation of crops for the whole village land must be arranged, so that they keep together. Thus the long working run and the large surface can be created for the machine, giving its work speed and economy. These are generally lacking on the peasant farm. Too much time is lost, and damage is done to the machine by continually taking it from one little allotment to another.

In my 'experimental village', the putting together of the allotments under the same cultivation and with the same rotation of crops have made the co-operative use of machines possible. The same cultivation, the same crop, the same seed, have taken away from the village fields the appearance of a large patchwork quilt. A thorough tillage, done several times at the right time, cultivation and the right attention at the proper time, the freshening-up of seed, the careful manuring from newly constructed, economical manure pits, and the ruthless destruction of weeds have secured and considerably increased the yield and have given to the farmers greater possibilities and a higher income. Helping manual labour by machinery, wherever this was practical, has alleviated the burden of work of both peasant and peasant woman, and when I finished the experiment the peasants readily decided upon the founding of a village co-operative society and agreed to the independent continuation of the ideas incorporated in the experiment.

Not only field-cultivation and its possibilities were examined, but also housekeeping and the other duties of the peasant woman. I knew that particularly baking, washing, and milking took up much of the peasant woman's time and strength, and that consequently the dire necessity of these tasks was always regarded with a certain dislike. An attempt was therefore made to relieve and speed up the work by the electric dough-kneader in the common bakery, the electric washing-machine, and the milking-machine. Dough-kneaders, the common bakery, and the common laundry have worked very satisfactorily, and the peasant woman would not like to do without them to-day. After a comparatively short time, however, they stopped using the milking-machines, which, in their opinion, saved no time and the daily cleaning of which demanded additional work. If this cleaning-work is neglected, milking by machines is no good.

The co-operative use of a machine for the canning of meat and vegetables, thus rendered always ready for use, has been especially popular. This machine enables the peasant woman to have fresh meat always in the house, and the salting and smoking, with its enormous waste and its unsuitability for summer food, becomes unnecessary. Also when animals have to be slaughtered to prevent diseases, the meat can be preserved immediately, and is, consequently, more economically utilized. Many parishes in the first experimental year brought their meat on wagons to have it canned in the experimental village—to-day ninety-two parishes in the district have bought machines. Practice has achieved much more than any number of lectures on the practical value of the machine.

If to-day, after finishing the experiment, I ask myself whether the new devices brought by the experiment were worth while for the village, I must say that they have done well in every way, and that they are capable of bringing about a progressive development of the peasant farms. All the peasants who formerly took part in the experiment and are now bound together in the co-operative society, are agreed on that. Even the one peasant of the village who did not take part in the experiment, and whose allotments often had a disturbing effect, has asked the leader of the co-operative society to be permitted to participate in the use of the machine, as he clearly saw that, in spite of all his efforts, his farm lagged more and more behind the others.

If everything has not been as perfect as I thought it would be, the reason is that the experiment had to be done in a village with an ancient agrarian constitution and whose peasants had rigid ideas about machinery and innovations.

It will not be easy to introduce all these co-operative measures and arrangements into the old villages, but one or other will be copied and has already been copied. The great interest and understanding which many peasant visitors to the village showed in the matter are, to my mind, a proof of it.

My opinion is that in new settlements the co-operative aids to manual labour, the increase of production, the raising of the yield, ought not to be dispensed with, as the co-operative use of machinery is really possible and practical and the decisive factor in its use is the men rather than the machines. This question is entirely a question of leadership. The possibility or impossibility depends on the leader of the co-operative society and on nothing else.

Gentlemen, what one learnt and experienced in four experimental years in a village cannot be exhaustively treated in a speech of twenty minutes. I have therefore prepared the report on this experiment for the agrarian conference, and requested the board for the promotion of the use of machinery in agriculture to publish it.[1] You will find in it all the details of the experiment which I could not give you in the short time at my disposal.

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[1] Bäuerliche Maschinen-Genossenschaft Häusern (The Association of the Peasants of Hausen for the Co-operative Use of Agricultural Machines). An attempt towards co-operative village economy. Volume 54 of the publications of the 'Reichskuratoriums für Technik in der Landwirtschaft' Beuth, Verlag, Berlin S.W. 19.

DISCUSSION ON COLLECTIVE FARMING

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The ultimate factor determining one's attitude towards collective and state agriculture and its administration is the conception of the tasks which agriculture has to fulfil within the framework of the state as a whole and of the national economy. According to German ideas, agriculture has to fulfil three main aims if it wishes to do justice to the needs of Germany's present situation. It must:

(i) Make the rural population the inexhaustible source of the blood of the nation and maintain and promote the special racial character of the people.

(ii) Make agriculture the steadfast guarantor of the existence of the State and thus constitute a firm core for the mass of the people.

(iii) Make agriculture the upholder of self-sufficiency in food supplies, thereby bringing security to the economy of the state.

The totality of these aims exceeds by far the purely economic attitude in agriculture, as is the main aim of other branches of the industrial system. They require that the principle of blood and soil be substantiated, which sets its centre of gravity in the racial problems of peasantry, and which implies, in addition, the national economic demand for as high a total yield as possible, but which, on the other hand, pushes individual economic efforts to obtain as high a net yield as possible, to an extent advantageous to the community. That is the tremendous change from the opinion of the past, which valued the soil simply and solely as a means of production in the course of business, completely neglecting, on the other hand, the peasants as upholders of the race, the state, and economic existence.

If we consider the collective economic system from this point of view, we must dismiss it. The reasons for this dismissal lie as much in the sphere of state and economic life as in the domain of race.

The most penetrating effect of collectivism is in connexion with the political value of the rural population. The adherents of the collectivist idea believe that they can secure the stability of the economic system through the machine-like efforts of the masses. National Socialism believes that the state functions best when it is borne by the responsible co-operation of as many independent citizens as possible. This is most true of people from the land, who by their work have a deep inner tie with the soil which they till. To take away the personal quality of their work would be equal to depriving them of their soil and destroying their most valuable forces. No true peasant will ever understand being dispossessed of his land, much less agree to it. This conception is 100 per cent. true of German peasants who are most intimately bound up with the soil as a result of their history and settlement dating back many thousands of years.

The preliminary conditions for collectivism in Russia were more favourable than in Germany in two respects, if the mental attitude of the peasant to the soil is taken into account.

First the Russian *Mir* system, which regarded the soil more as the property of the village community and gave the individual peasant only a limited period of usufruct, did not root the idea of property in the Russian farmer as is the case with us. In addition, the idea of personal freedom had not developed to such a pronounced degree in the Russian feudal system. At the same time, from a purely psychological point of view, the fundamentally passive attitude of Russian mentality offered a far better preliminary condition for expropriation than that of the splendidly active vitality of the Nordic-Germanic peasantry. If, then, a communal property in the soil is conceivable for Russian agriculture, for German peasants it is simply unthinkable. It would undoubtedly make the truest and most devoted people of our nation the greatest and bitterest enemies of the state.

In addition, however, the goal of promoting the nation in relation to numbers of population and race is hard to reach with a collective economic system. The creation of a high quality future generation is only conceivable within the framework of a family of high cultural value.

The more the family has been morally strengthened and trained in a generation-long experience on its own property, the more it offers the best possible basis for the development and promotion of good qualities. In this sense the peasant population is the cradle of the people, judged not only by numbers but also by the racial character.

The new development of the birth-rate on the Russian plain proves that the collective system of agriculture has caused the utmost injury even among this people with formerly a high birth-rate. To-day's general reduction in births in Russia can be traced to two causes. On the one hand, the opinion that the industrial proletariat of the towns hold about the child has taken root among the peasants in conjunction with their proletarization. Apart from the general propaganda, the transfer of town dwellers to collective farms or state-managed farms has seen to this. Of equal importance is an economic reason based on the wage system of the collectives. Wages are paid only according to work actually done, and the number of children is totally disregarded in the sharing of the food rations of which the wages mainly consist. As, on the one hand, motherhood and the bearing of children imply a reduction of the woman's share of the work, and as, on the other hand, children are merely burdensome mouths to fill without being able to do any work on the collective farm, the Russian collective peasant to-day is opposed to an increase in his family.

The superiority of independent family farms is seen even more clearly when the maintenance and improvement of the race are kept in view. The collectivist form of economy, with its desolate equalizing process, must in time reduce the level of its people rather than raise it. Against this the responsible management of their own property and the possibility which goes with it of developing their own qualities gives quite a different stimulus and more scope for the building up of a distinctive individual character. The natural development of the race is thereby promoted. That is, of course, all the more decisive, the more the whole of agriculture and economic life is adapted to the leader-principle.

Finally, the collectivist idea of economics has its great weakness also in relation to food self-sufficiency, under special German conditions. The causes lie in the natural foundations of agriculture as well as in the peculiarities of the farm organization. Nature has a restricting effect by reason of the variety of soils and the marked change of climate. Both factors demand a great deal of technical skill and devotion if yields are not to suffer. To this is added the degree of intensity of central European agriculture which dictates a certain farm organization. A gross yield, as high as possible, is to be expected from our present-day agriculture only if on the one hand the nutrients withdrawn from the soil are replaced, and, on the other hand, measures are taken for the best possible utilization of the by-products. This twofold goal can be achieved with us only by means of a mixed farm organization which lays equal stress on crop farming and live-stock farming. Specialization and mechanization, the main factors of a collective farm, are consequently impracticable in German agriculture. Both natural difficulties and the peculiarity of farm organization combine to make it possible only for a peasant family farm to exploit the soil properly. Not only are considerable knowledge and versatile technical ability demanded, but personal devotion and readiness to work hard are equally necessary to achieve success. These qualities can be expected in full development only among the independent peasants who put their whole spirit of enterprise and their whole professional pride into the improvement of their farms. Here and there these qualities may be encountered with quite different mentality, even among the members of a Russian collective farm, if such member is deeply convinced of the rightness of the ultimate aim of the State policy. The mass of dependent labourers who do not enjoy responsibility do not follow the policy, as is proved by the complaints of Russian economic leaders about the defective will to work of the collective peasants.

A collectivized agriculture, in these circumstances and with this political objective, is impracticable for Germany, because in its inflexibility and extent it resembles a strait-jacket, which stifles the personal and economic self-respect of farmers and thus in course of time destroys their value for the state. Our ideal is the family farm unit bound to nature, which in its attachment to the soil contains an absolute security for the maintenance of race, nation, and state. The hereditary farm system (*Erbhof*) based on the ancient German hereditary law (*Anerben*) provides as a matter of principle that the farm business shall be protected from economic hazards and the damages of a liberal constitution.

The measures concerning market adaptability, the provision of credits, and regulation of prices provide, in addition, that the peasant shall be able to perform his racial and political-economic tasks in absolute economic security. We shall in future, with all the means of the state forces and political skill, not only maintain the peasant farm, but also develop it. The law for the new formation of German peasantry will help us in this work, because we shall rapidly settle people on vast areas of the big estates. The new and decisive factor is that, in this settlement, economic points of view will not be given the primary consideration but that the settler's racial and peasant suitability for the solution of the national political tasks will be placed in the forefront.

We are, indeed, quite clear that it will be necessary first of all to prepare our peasantry for the solution of its political tasks. For this purpose a certain corporative framework is necessary if this education is to be highly effective. The system of organization, as it developed in the past in German agriculture with the purely private economic motive, certainly does not offer the necessary lever; it was perhaps capable of promoting, here and there, one or the other type of business, but in its arbitrariness and its lack of unity it can never offer the security for the execution of the main agrarian policy all along the line. The decided defects of this one-sided, private economic system of organization can be overcome only by a unique and completely new form of agricultural corporation, as built up by the Peasant-Leader, Darré, in the *Reichsnährstand.* The main characteristic of this organization consists of stimulating all the forces of our agriculture for the aims of agrarian policy without resistance from the soil and its people to delay or even to hinder the work of national reconstruction.

The corporation of the *Reichsnährstand* is based on principles which guarantee the desired success. Self-government is the main principle which it is intended to apply to German agriculture. The old German idea of the corporation means that each co-operating group shall be autonomous in all matters concerning it alone. This idea will also be realized for agriculture in the constitution of the future German economic state. The omnipotence of the former *Marxist* state, which tried to control everything and finally did not accomplish anything, is being replaced by a sensible decentralization of the large industrial and agricultural groups.

The state has two essential duties towards the *Reichsnährstand.* Chiefly it can arrange for the farming community the fulfilment of necessary tasks. Thus every single peasant obtains a definite place in the whole economic life and thereby increases the active participation of the farmers in the framework of the general economic policy. At the same time, the state limits the activities of this corporation so as to protect others. The state, by continuous supervision, sees to it that the activities of one corporation do not harm the interests of others or the well-being of the nation.

In order that the *Reichsnährstand* might solve the problems confronting it there are two National Socialist principles applied to its organization. First, there is the principle of an all-embracing membership. The *Reichsnährstand* is an incorporated body, membership of which is compulsory for all engaged in agricultural production and distribution. Neither peasant nor any member of his family nor employees nor workers can evade this organization. All are under the supervision and influence of the corporation. It is essential that the qualified and progressive should regard this organization not as compulsion but as offering them a possibility to work as honorary officers according to their abilities and inclinations. Every one acquainted with the *Reichsnährstand* knows that the organization has succeeded in mobilizing many highly qualified men for the benefit of the groups and of the whole community.

Second, there is the principle of leadership. In every stage and in every department professional men will hold the leading positions in the future—men who have taken over the management from a consciousness of responsibility and personal leadership. It is a great advantage that these peasant leaders possess the necessary degree of personal independence on their farms in order to pursue with all their energies the measures which they consider right. The professional official is mainly confined to administration; the creative initiative lies in the hands of the hereditary peasant himself.

The organic structure of the *Reichsnährstand* is based on these principles. Horizontally, it embraces every branch and sphere of agriculture. The four main departments include (i) the welfare of the people, (ii) the advancement of agriculture, (iii) the development of agricultural co-operative societies, and (iv) the linking of agriculture with commerce and the manufacturing industries. Every possible care is taken to obtain organic development in all these fields. In the vertical direction, the organization leads from the smallest village, over county and province, to the centre of government. Here we have an uninterrupted, real and personal chain, which despite its extent is elastic and full of purpose.

The German *Reichsnährstand* is thus an organized framework which binds together the individual farmers. Machine-like interference with ownership or management has never been planned; every one remains entirely responsible for the conduct of his business and the interests of his family. On the other hand, we attempt to secure the voluntary co-operation of every farmer in solving the great political and economic problems. Compulsion, much less the crude force of the magistrates, is not the means for us of attaining our agrarian objective. We appeal simply and solely to the goodwill and the idealism of our peasants. We know that a vast amount of education is needed in order to instruct and to win over the peasants to these tasks; in the *Reichsnährstand* there is the means which should smooth the way and show to each his place in the work. As it is a difficult problem which has to be solved if we are to carry Germany over her present difficulties for a long time to come, this organization can only succeed if every peasant is ready to put his whole energy into it. The basis of this agricultural corporation is thus the absolute faith in the sound sense and feeling of responsibility of the German peasants. This belief alone to-day gives the leaders of the organization and the mass of its members the moral force and personal strength to tackle day after day these difficult problems.

SECTION III

POPULATION GROWTH AND AGRICULTURE

THE POPULATION PROSPECT

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POPULATION growth has been slowing up in most nations of the Western world. This general trend is well known to most agricultural economists, for the relation between the number of people to be fed and a long-time agricultural programme has been receiving much attention of late. What is not so generally understood, however, is the rapidity with which growth has fallen off in the last few years.

Within the past decade several students of population have calculated the future number of inhabitants of various countries according to certain trends of birth-rates, death-rates, and immigration. Published studies include those for Great Britain by Bowley[1] in 1924 and Leybourne[2] in 1934, for the United States by the author[3] in 1928 and 1933, for France by Sauvy[4] in 1928 and 1929, for Germany by Kahn[5] in 1930 and Burgdörfer[6] in 1932, for Belgium by Baudhuin[7] in 1931, for Italy by Gini[8] in 1931, and for Denmark by Jensen[9] in 1931. In most cases the general plan has been to start with the population by five-year age periods as given in the last census, to calculate the number of survivors in each age period at future years according to the most recent life tables, and to compute births since the census by means of recent·specific birth-rates. Occasionally an allowance has been made for a gain or loss through migration. In some studies several sets of computations have been made, based on different assumptions as to future trends in specific birth-rates, specific death-rates, and migration. In this paper the endeavour will be to present the results obtained and to show the extent to which the smallest population growth calculated by the least favourable of the assumptions is proving to be too high for most nations.

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[1] Bowley, A. L., 'Births and Population in Great Britain'. *The Journal of the Royal Economic Society*, vol. xxxiv (1924), pp. 188–92.

[2] Leybourne, Grace G., 'An Estimate of the Future Population of Great Britain'. *The Sociological Review*, vol. xxvi, no. 2 (April 1934), pp. 130–8.

[3] Whelpton, P. K., 'Population in the United States, 1925–1975'. *American Journal of Sociology*, vol. xxxiv, no. 2, pp. 253–70. Whelpton, P. K., and Thompson, Warren S., *Population Trends in the United States*. New York: McGraw-Hill Book Company, 1933.

[4] Sauvy, Alfred, 'La Population française jusqu'en 1956, Essai de prévision démographique'. *Journal de la Société de Statistique de Paris*, no. 12 (December 1928), pp. 321–7; no. 1 (January 1929), pp. 8–13.

[5] Kahn, Ernst von, *Der internationales Geburtenstreik*, Frankfurt am Main, Societäts-Verlag, 1930, pp. 81–95.

[6] Burgdörfer, Friedrich, *Volk ohne Jugend*. Berlin-Grunewald. Kurt Vowinckel Verlag G.M.B.H. 1932.

[7] Baudhuin, Fernand, 'L'Avenir de la population belge'. Extrait du *Bulletin d'Information et de Documentation de la Banque Nationale de Belgique*, 6ième année, vol. i, no. 11, du 10 Juin 1931.

[8] Gini, Corrado, *Calcoli sullo Sviluppo Futuro della Popolazione Italiana*. Rome: Istituto Poligrafico Dello Stato, 1931.

[9] Jensen, Adolph, 'Horoscope of the Population of Denmark'. *Bulletin de l'Institut International de Statistique*, vol. xxv, pt. 3 (1931), pp. 41–9.

Great Britain. Bowley's calculation of Great Britain's future population, published in June 1924, was based on the assumptions that the specific death-rates of 1910 to 1912 would continue in effect, that the annual number of births would remain as in 1921 to 1923, and that there would be no migration. Starting with a population of nearly 42,800,000 in 1921, his results showed an increase to a maximum of nearly 48,900,000 in about 1980 with a slight decrease thereafter. At the time this estimate was published it seemed reasonable, but now it is plain that population growth is lagging behind these figures. The 1931 census count of 44,800,000 was almost 600,000 below Bowley's calculation, the major part of his excess being caused by too high an assumption for births, and most of the remainder by not allowing any excess of emigrants over immigrants.

Miss Leybourne's calculations for Great Britain, published last April, take account of the rapid decline in the birth-rate and the small decline in the death-rate that has occurred since the base period used by Bowley. She assumes that birth-rates will continue to decline until 1944 at about the pace followed from 1924 to 1931, that death-rates will be lowered but slightly from the 1924–32 average, and that emigration will equal immigration, as has been approximately the case recently. On these assumptions Great Britain's population will reach a maximum next year at 45,144,000 and will then decline to 32,713,000 in 1976. This latter figure is about 16 millions below Bowley's result of almost 48,900,000 in 1976, a difference which should be quite significant in connexion with any plans for a British agricultural programme during the next half-century. Leybourne's figures are so much below Bowley's, chiefly because the lower birth-rates she assumes give about 16 million fewer persons under 45 in 1976; for her lower death-rates give 600,000 more persons over 65 than Bowley obtained.

Whether birth-rate trends are likely to change so much between now and 1976 that Bowley's figures will be as nearly correct as

Leybourne's will be discussed later. It is almost certain, however, that Leybourne's result of 44,840,000 in 1941 will be much nearer Great Britain's actual population than Bowley's result of 47,280,000.

Germany. Ernst Kahn's calculation of Germany's population growth published in 1930 was based on the assumptions that infant mortality would decline 70 per cent. in 25 years and specific death-rates at older ages 20 per cent. in 45 years, that the number of children born per married couple would decline from 1·94 in 1929 to 1·50 in 1950–4 and remain at this level, and that there would be no gain or loss through migration. On this basis the German population would increase from 59,177,000 in 1920 to a maximum of about 65,500,000 between 1935 and 1940 and would then decline. By 1975 there would be less than 50 million persons, with the decrease continuing at a diminishing rate.

Burgdörfer's calculations published in 1932 were made on three assumptions as to birth-rates, but in each case the specific death-rates were assumed to remain as in 1927 and no allowance was made for a gain or loss through migration. The most optimistic assumption was that specific birth-rates would remain as in 1927. On this basis Germany's population would increase to over 71 millions in 1965 and would decline slowly thereafter. Nearly as optimistic was the second assumption that the number of births would remain as in 1927. This would give a population of almost 70 millions in 1960 which would become stabilized at 67 millions by the end of the century. Burdörfer's lowest assumption was a decrease of 25 per cent. in specific birth-rates from 1927 to 1955 with no subsequent decline. The resulting population would reach a maximum of nearly 68 millions in 1945 with a decline thereafter to 57 millions in 1980 and further losses in prospect.

Of the three estimates by Burgdörfer and the one by Kahn, which most nearly approximates the actual population growth? The answer to date may be found by comparing the trend of the birth-rate with the various assumptions made. As Burgdörfer himself has pointed out, the decline in the birth-rate since 1927 (his base year) has been more rapid than his lowest assumption. By 1929 specific birth-rates had declined 6 per cent. from 1927, by 1930 the decline was 9 per cent., by 1931 it was 18 per cent., and by 1932 approximately 22 per cent. I understand the decline to 1933 was about 30 per cent. In 6 years, then, specific birth-rates have dropped more than Burdörfer's lowest assumption allowed in 28 years, whereas there has been only a slight decrease in the crude death-rate. At the present time, therefore, the results of Burgdörfer's two more optimistic assumptions are far too high, and even his lowest results, like those of Kahn, appear above rather than below the actual population. Unless the German birth-rate continues at or above the 1933 figure, or unless migration adds appreciably to the population, Germany's agricultural programme should be based on 40 million inhabitants in 1980.

Italy. In 1931 Gini published several calculations of the future population of Italy based on different assumptions as to birth- and death-rates and migration. The largest population growth, from 38,950,000 in 1921 to 63 millions in 1961, resulted from the assumptions that specific birth- and death-rates would remain as in 1928 and that no migration would occur. The smallest growth, to 47,300,000 in 1961, resulted from the assumptions that specific death-rates would remain constant, that the decline in specific birth-rates from 1922 to 1928 would continue until 1948 and that net emigration would amount to 950,000 during 1921–31 and to 400,000 in subsequent decades. In all cases population growth would continue to 1980, though no results were shown after 1961.

Here again Gini's lowest assumptions, although too optimistic, are closest to the actual population growth to date, the 1931 figure of 41,900,000 which they give being only 700,000 above the census of 41,200,000. There has been a decline in death-rates not allowed for by the low assumptions, but the birth-rate has declined more rapidly since 1928 than it did from 1922 to 1928, and the loss by emigration has been larger than assumed. Unless the decline in the birth-rate is soon checked or unless emigration decreases, the population to be provided for in Italy will continue to be less than Gini's lowest figures.

Denmark. In 1932 Jensen published three sets of results regarding the future population of Denmark, varying the assumptions for birth-rates and migration, but in each case assuming specific death-rates of 1921–5 to remain in effect. The largest population, increasing from 3,250,000 in 1921 to over 5,500,000 in 1981, was given by assuming no migration and a continuation of 1921–5 specific birth-rates. Allowing the same net immigration as during 1921–5 and the same specific birth-rates as from 1926 to 1929 resulted in a population of 4,400,000 in 1981, with little subsequent gain. Continuing the 1927–9 number of births instead of the birth-rate for that period gave still lower results, the population reaching a maximum of 4 millions in 1971 and declining slightly thereafter.

Clearly the first assumptions are too high to date for they do not take into account the decline in birth-rates and loss by emigration that has occurred since the 1921 census, not even that known at the time they were made. The results yielded by the other assumptions were practically identical for 1931, and differed only slightly from the 1931 census. Both the birth-rate and the number of births have declined more rapidly since the base period than these assumptions anticipated, but the loss through emigration has also been smaller than assumed. For the future, there must be no decline in the number of births, or else a decline must be offset by a smaller loss or even a gain through migration, if the population of Denmark is ever to reach the 4 million mark.

France. Figures showing the future population of France were presented in November 1928 by Alfred Sauvy, calculated according to the assumptions that the specific death-rates of 1920–3 and the specific birth-rates of 1927 would continue in effect, and that there would be no gain or loss through migration. On this basis France would continue to have about 39,500,000 inhabitants from 1928 until 1940, after which there would be a slight decline. Sauvy mentioned the possibility that the decline in the birth-rate which had gone on in France for many years prior to 1928 might continue. In this case actual births each year would be under his figures by an amount increasing up to 150,000 annually in 1956, and the population in that year would be some 2 millions below his result of 38 millions computed on a stationary birth-rate.

Unlike the calculations for Great Britain, Germany, Italy, and Denmark, those for France have proved too low. Instead of 41,835,000 as shown by the census for 1931, Sauvy had calculated only 39,540,000, a deficit of almost 2,300,000. The deficit resulted largely from the fact that immigrants exceeded emigrants by almost 2 millions in the intercensal period, while Sauvy assumed no gain from this movement. A small part may also have been due to a decrease in death-rates after 1920–3. On the other hand, the birth-rate during 1928–30 averaged somewhat below that of his base year (1927), and has declined still more since 1930. Estimates of net migration are more hazardous than those of birth-rates, but judging from events of the last five years Sauvy's omission of an allowance for immigration during the next decade or two will more than offset his not allowing for further declines in the birth-rate during this period. In this case, the French population which exceeded his figures by almost 2,300,000 in 1931 should do so by somewhat larger amounts up to 1950 or thereabouts.

Belgium. Like Sauvy's calculations for France those of Baudhuin for Belgium, published in 1931, have proved to be slightly under rather than above the actual population. He assumed specific birth-rates and death-rates would continue about as in 1928 and made no allowance for a gain or loss through migration. On this basis the population of Belgium would increase from 7,406,000 in 1920 to 8,110,000 in 1940, and then decline to 6,725,000 in 1980. Judging from crude rates his assumption for births and deaths has been followed closely, the 1932 rates being almost identical with those of 1928. Migration added about 164,000 to Belgium's population from 1921 to 1931, which is approximately the difference between the 1930 census of 8,090,000 and that of 7,910,000 computed by Baudhuin. If trends of the last five years continue, immigration will keep Belgium's population from declining quite as fast as Baudhuin's figures indicate.

United States. The first calculations for the United States by the writer, published in 1928, assumed that specific death-rates would continue to decline much as in the past until they would reach in 1975 the New Zealand rates of 1920–2. For specific birth-rates it was assumed that the downward trend would keep on at about the pace from 1905–9 to 1925–6, so that by 1975 these rates would be about 75 per cent. of the 1925–6 figures. Based on immigration reports for 1925–7 an allowance of 200,000 was made for annual net immigration after 1927. On these assumptions the population of the United States would increase from 105,711,000 in 1920 to 175 millions in 1975. The result for 1930 was a little too high, being about 200,000 above the census count of 122,775,000, but since then birth-rates and net immigration have been considerably below the assumptions, making the calculated population too large by an increasing margin.

In 1932 the future population of the United States was calculated according to several sets of assumptions for birth-rates, death-rates, and migration. The results were published in *Population Trends in the United States* by Warren S. Thompson and the writer early in 1933. The lowest assumptions were a decrease of about one-third from specific birth-rates in 1925–9, a continuation of 1930 specific death-rates, and no immigration. The resulting population increased from 122,800,000 in 1930 to 136,500,000 in 1956 and then declined to 126,500,000 in 1980. At the other extreme were the assumptions of a decline of only about 15 per cent. in specific birth-rates, a decline of about 15 per cent. in specific death-rates, and the net arrival of 200,000 immigrants annually during 1935–9 and 300,000 annually thereafter. Under these conditions the population of the United States would increase for a century or more and would amount to 202 millions in 1980. In this book, Thompson and I stated our belief that population growth probably would follow more closely the results of our so-called medium assumptions than of either our high or low assumptions, but would more likely be below than above the medium figures. These showed the population increasing to 155 millions in 1980, which is well below the 1975 figure of 175 millions yielded by the 1928 assumptions. As a matter of fact, however, our lowest assumptions give a population on January 1, 1935, of 127,300,000, which will be about 250,000 too high. Instead of immigration equalling emigration during 1930–4, in accordance with our lowest assumption, there has been an excess of departures. In addition, the number of births has declined more rapidly than we thought at all probable, births in 1933 being 11 per cent. fewer than in 1930, and specific birth-rates declining still more. Unless the decline is checked rapidly our low figures of 136,500,000 as a maximum population for the United States will not even be reached. This means future growth will increase the January 1, 1934, population by less than 8 per cent.

In France and Belgium immigration has added enough to population growth to make it run slightly higher than anticipated according to reasonable assumptions for birth- and death-rate trends. On the other hand, in Great Britain, Germany, Italy, Denmark, and the United States the population has grown less than indicated by apparently low assumptions for birth-rates, death-rates, and migration. The net result for these seven countries has been decidedly below expectations. Will this be true during future years? Only a prophet can give a definite answer to such a question. The writer disclaiming any prophetic powers and having but limited time here can only summarize certain facts bearing on the question.

FUTURE DEATH-RATES

Regarding future death-rate trends there is little disagreement among the well informed, and apparently a prospect of only minor errors. Most students of vital statistics realize that it will be difficult, if not impossible, to increase the expectation of life beyond seventy years and that progress towards this goal is likely to become increasingly slower in the future. Their assumptions in recent years have been modest and have been close to actual events. Population growth has not been falling behind the anticipated figures because of failure to achieve the small improvement in mortality rates assumed, nor is it likely to do so in the next few decades.

FUTURE IMMIGRATION

If immigration and emigration were governed chiefly by economic conditions it would be hard enough to indicate the movement likely to occur during the next several years. Adding to the difficulties are the legislative restrictions which act as the decisive factor in the United States and many other countries, and for which there is little basis of judging trends long in advance. At present the most general belief seems to be that immigration will continue to be limited rather rigidly by the United States and certain other countries which have received many immigrants in the past, while emigration will be discouraged by some countries which formerly sent out large numbers of persons. In most of the assumptions discussed above, little allowance has been made for gains or losses through migration. In France and Belgium, where population growth has run above the calculated figures, the most important cause is the immigration that has taken place. An important number of the immigrants to France came from Italy, where the 1931 population was below the mark set by Gini's lowest calculations primarily because net emigration amounted to nearly 1,800,000 during 1921–31 instead of 950,000 as he assumed. To quite an extent, therefore, the gains by immigration to some of the above countries mean losses by emigration for others and have little effect on the total population of all seven.

Nothing was said earlier in this paper about the probable growth of population in the countries of eastern and south-eastern Europe, in some of which the increase is believed to have been rapid in recent years. Kuczynski[10] has shown, however, that in Czechoslovakia, Latvia, Austria, and Esthonia the net reproduction rate is less than one, which means that present birth- and death-rates will not maintain population growth permanently. Emigration from these countries on a large scale appears quite improbable; if there is such a movement it must come from such countries as Russia with a net reproduction rate of 1·7 in 1929, or the Ukraine, Bulgaria, or Poland with rates of 1·3 to 1·4 at that time. These nations now have a population growth sufficiently large to furnish each year many thousands of immigrants to the countries of western Europe. Whether the transfer occurs will depend largely on economic conditions, and on governmental rules and regulations.

But even countries whose population is now growing rapidly may have a large decline in rates of increase in the future. Japan, for example, has experienced a remarkable population growth in recent decades; the number of inhabitants rose from 56 millions in 1920 to 64 millions in 1930, and the crude rate of increase was 14 per 1,000 in 1933. Nevertheless, such an authority as Uyeda[11] believes that growth will slow up rapidly in the future. His conclusions are that Japan's population will never reach 100 millions, and probably will not exceed 80 millions, with a declining birth-rate bringing about much of the stoppage of growth. Such a dwindling of the rate of increase seems equally probable in some of the eastern and south-eastern European nations.

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[10] Kuczynski, Robert R., *The Balance of Births and Deaths* (Washington: The Brookings Institution, 1921), vol. ii, p. 64.

[11] Uyeda, Teijiro, 'Future of the Japanese Population'. Preliminary paper prepared

FUTURE BIRTH-RATE

As pointed out earlier, it has been primarily because of a rapid decline in the birth-rate that population growth in the United States and the nations of western Europe has lagged behind even the low expectations on the whole. Among the causes to which this decline has been ascribed are biological changes, venereal and other diseases affecting fertility becoming more widespread, the nervous strain of city life becoming more intense, changes in diet, an increasing number of persons being in sedentary occupations instead of leading an active outdoor life, a lowering of the marriage rate among those of a marriageable age, and an increase in the practices of abortion and contraception. The relative importance of each of these factors is of interest here in considering what the trend of the birth-rate will be in the future. Although this will be discussed primarily from the standpoint of the situation in the United States, it is believed that the underlying principles apply fairly well to the countries of western Europe.

That the low birth-rate of to-day is due in part to biological and physiological causes is certain, for the experience of physicians shows that there are a number of couples who have tried to have children but to whom no live births have occurred. Thus Reynolds and Macomber,[12] two leading gynaecologists, estimate that the percentage of married couples in Massachusetts who are infertile is between 10 and 13 per cent., and that most of these are infecund. Unfortunately there is very little evidence in the United States of the extent of sterility, and none as to changes in the situation during past years. There are abundant data showing the increase in the proportion of childless couples which has taken place, but, as will be shown later, the indications are that this is due to other causes than biological changes lowering fecundity.

Several of the other causes are equally difficult to measure. Statistics of venereal diseases are entirely inadequate at present and past trends

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for the Fifth Biennial Conference of the Institute of Pacific Relations held at Banff, Canada, August 14 to 28, 1933. Tokyo: Japanese Council, Institute of Pacific Relations, 1933.

[12] Reynolds, Edward, and Macomber, D., *Fertility and Sterility in Human Marriages.* Philadelphia and London: W. B. Saunders Co., 1924.

cannot be known. That there is a nervous strain connected with city life, and that it has increased in intensity with greater congestion in cities and the speeding up of the tempo of urban life, seems probable, and it is certain that city birth-rates have declined. It is yet to be proved, however, that there is a causal relationship between these series of events. As far as diet is concerned the importance of vitamin E has been proven, but there seems far too small a change in the vitamin E consumption of the population to cause the decline in the birth-rate that has taken place. As far as a lowering of the marriage rate is concerned, the trend in the United States has been upward, hence in that country there should be a higher rather than a lower birth-rate to women in the child-bearing ages.

Beyond question the practice of abortion is partially responsible for the low birth-rate, but here as with infecundity, current information is meagre and inadequate, while information on trends is practically non-existent. One of the best sources of statistical information is the study of 10,000 women who went to the Birth Control Clinical Research Bureau in New York City from 1925 to 1929.[13] Prior to their first clinic visit 38,985 pregnancies had occurred to these women, 7,677 or 19·7 per cent. ending in induced abortions. In this group less than 4 per cent. of first pregnancies were terminated by induced abortion while 20 per cent. of second pregnancies and about 30 per cent. of fourth pregnancies were so ended.

Many students of population have long believed, like the writer, that the practice of contraception has been by far the most important cause of the present low birth-rate in the United States and certain western European nations, and of the rapid decline in rate that has occurred in the past. Until recently, however, the direct statistical basis for this belief was not fully adequate, since there was no assurance that it was obtained from unbiased groups. Results of several of the earlier studies were important, nevertheless. For example, Dr. Katharine B. Davis[14] reported in *Factors in the Sex Life of Twenty-Two Hundred Women* that 730 of each 1,000 married women returning questionnaires practised contraception. Among women going to the Birth Control Clinical Research Bureau in New York City, 95 per cent. had made some effort before their first clinic visit to limit their families by the practice of what they believed to be contraception.[15] Comparing the frequency of pregnancy among these

[13] Kopp, Marie E., *Birth Control in Practice*. New York: Robert M. McBride & Co., 1934.

[14] Davis, Katharine B., *Factors in the Sex Life of Twenty-two Hundred Women*. New York and London: Harper & Brothers, 1929.

[15] Stix, Regine K., and Notestein, Frank W., 'Effectiveness of Birth Control'. *The Milbank Memorial Fund Quarterly*, vol. xii, no. 1 (Jan. 1934), pp. 57–68.

women with that among those who had not practised contraception indicated that the former lowered the chance of becoming pregnant by 73·6 per cent.

Quite recently the statistical knowledge of the prevalence and effectiveness of contraceptive practices has been greatly enlarged by studies of Dr. Raymond Pearl[16] dealing with nearly 5,000 married women not selected according to their interest in birth control. Among the white women in the study the proportion practising contraception rose from 32·7 among the very poor to 38·8 among the poor, to 50·6 among those in moderate circumstances, and to 78·3 among the well-to-do and rich, and was higher among those who had been pregnant two or more times than among those who had borne their first child shortly before being interviewed. About half of the women were successful in their contraceptive practice, having only desired pregnancies. About one-third were unsuccessful primarily through lack of knowledge about effective practices, while about one-sixth were unsuccessful through carelessness in usage of contraceptive methods and appliances. Among white women in the well-to-do classes, however, nearly 70 per cent. of those who had experienced two or more pregnancies practised contraception so successfully as to have only as many pregnancies as they wanted. Among white women who had not practised contraception the mean pregnancy rate was practically the same in all four economic classes. This is in great contrast to the inverse relation between fertility and economic status found in the general population, and indicates strongly that the latter is due to variations in the practice of contraception rather than to biological, physiological, or environmental causes. Further evidence is furnished by the facts that the mean pregnancy rates were similar among white and negro women not practising contraception, and in each economic class among white women using the same contraceptive practices.[17]

This direct evidence on the extent and effectiveness of the practice of contraception fits in well with the indirect evidence built up previously on the basis of certain existing differentials. Over a long period it has been observed that there was an inverse relation between birth-rate and economic status in American cities. The explanation was advanced that among city people those in the upper economic groups would first learn effective practices of contraception and those in the lowest groups would be last in obtaining this knowledge.

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[16] Pearl, Raymond, 'Contraception and Fertility in 4945 Married Women. A Second Report on a Study of Family Limitation'. *Human Biology*, vol. vi, no. 2, pp. 355–401.

[17] Ibid., p. 399.

Pearl's study finds this to be the case. Eventually when contraceptive information is equally widespread among all economic groups, birth-rates of the poorest group may fall sufficiently to be slightly under those of the upper groups. This is the situation Edin[18] reports for Stockholm.

As far back as records go in the United States, urban birth-rates have been below rural rates. An explanation suggested was an earlier and wider spread of contraceptive information among urban people. In addition it was believed there was less pressure to practise contraception on farms, for children have been less of an economic burden to rural than urban people in the past. Pearl's study does not throw light on this matter, rural women probably being relatively few in the sample and not tabulated separately. But in view of his results the writer fully expects this hypothesis to be proven.

In the future it is believed that knowledge about contraceptive practises will spread among the lower economic groups in the cities and among rural people until their situation in these respects is similar to that of upper economic city groups. To quote from Pearl's study:

> 'The general picture is of a state of affairs where a high proportion of the economically most fortunate classes are practising contraception with a relatively high degree of precision and intelligence, producing mainly only as many babies as they want and when they want them. On the other hand the less and particularly the least fortunate economic classes, in this material certainly, are to a much smaller extent making any attempt to practise contraception at all, and of those who are making the attempt the proportion who are doing so intelligently and precisely is also smaller. Our detailed records indicate clearly that *this is due primarily to ignorance of contraceptive methods and technique*, rather than to a desire to have large families. Hundreds and hundreds of the women in this sample who do not practise contraception are pleading for information and instruction so that they may. A more perfect illustration than that afforded by the figures of this report would be hard to find of the element of truth embodied in that plaintive ballad whose refrain states that:
>
> It's the *rich* what 'as the pleasure;
> It's the *poor* what gets the blime!'

In view of the facts, little probability is seen of the birth-rate in the United States or in most European countries ceasing to decline, or of present rates being regained in the future. The rapid decrease in the birth-rate during the recent depression is not believed to be a temporary phenomenon, to be followed by an increase when good times return. Instead, it is argued that the depression has intensified the need for families to control their size, and hence has speeded up the spread of contraceptive information and of success in limiting births. Comparatively little of the drop in rates brought about in this manner is expected to be regained as economic conditions improve by the occurrence of births postponed because of hard times. It is believed that the return of many city people to a rural environment which has occurred in the United States as a result of the depression will not check the decline in the birth-rate because of the higher rural rate applying to a larger proportion of the population, but rather that it will speed up the decline by spreading more rapidly city information regarding contraception among country people. There are no exact current data available on this matter, however, since births in the United States are tabulated by place of occurrence of birth rather than place of residence of the mother, the depression has greatly decreased the use of city hospitals by prospective rural mothers, and the size of the urban-rural migration is not known by age groups.

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[18] Edin, Karl Arvid, 'The Birth Rate Changes'. *Eugenics Review*, vol. xx, no. 4 (Jan. 1929), pp. 258–66.

The general tendency of persons who have been studying future population growth has been to underestimate the speed with which contraceptive information would be spread and put into practice, and hence the rapidity with which the birth-rate would be lowered. One result may be that the birth-rate will become stabilized earlier than anticipated, as low rates are attained in the near future. In the meantime, however, the conclusion seems inevitable that population growth in most nations of the western world will be smaller than the figures computed on the basis of the low assumptions published.

CHANGES IN AGE COMPOSITION

Almost all of the studies referred to above point out the important changes that will occur in the age composition of the population as population growth follows the low assumptions. In general these are a rapid decrease in the proportion and some decline in the number of children and youths in the population, a small increase in the proportion of young adults in the best working ages (20–45), a medium increase in the proportion and a rapid increase in the number of adults in the older working ages (45–65), and a large increase in the proportion and a still larger increase in the number of elders, those over 65 and whose working days are about ended. So much has been said of these changes and so little of my time remains that I shall not go into detail regarding them but will only give a few examples. According to Leybourne's calculations Great Britain will have barely 4 million persons under 15 in 1976 compared with nearly 11 millions in 1931, while the number of persons 65 and over will increase from slightly over 3 millions to almost 6 millions. In Germany, Kahn's computation envisages a decline from almost 15 millions under 15 in 1931 to not quite 5 millions in 1975, and an increase in those 65 and over from 4 millions to almost 11 millions. In Italy, Gini's low assumptions show smaller changes, the population under 15 being 11,700,000 in 1961 compared with 12,200,000 in 1931, and the population 65 and over rising only from 2,600,000 to 3,800,000. In the United States our lowest assumptions show persons under 15 numbering 23 millions in 1980 compared with 36 millions in 1930, and those 65 and over rising from 6,600,000 in 1930 to 17,100,000 in 1980.

Striking as these changes are, it must be remembered that the failure of population growth to come up to the low assumptions for most countries during the next half-century will mean a still greater decline in the number and proportion of children and youths and a still larger increase in the proportion of those too old to work, although the number of the latter will not change from the low assumptions because it is determined by births that have already occurred.

To agriculture, as to other interests, the possibility that the population of north-western Europe and North America will reach a peak within twenty years and then commence to decrease may be quite alarming and seem to call for action. Two courses may be suggested, one dealing with goods and the other with people. Under the first a long-time programme will be developed for increasing the per capita purchasing power of the population, particularly of those large masses who are now little above a mere subsistence level, and for controlling production so that it will be in line with this demand. Under the second the attempt will be to check the decline and even cause an increase in the birth-rate and the population growth by putting into effect economic measures to lighten the burden of child-rearing on the family, and by endeavouring to change social attitudes so that the importance of child-rearing to a well-rounded personal development will be more fully appreciated and individuals brought to feel more responsibility for the perpetuation of the race. It may be that progress can be rapid along the first lines, but my belief is that it will be slow along the second because of the fiscal difficulties of granting worth-while financial benefits for child-rearing, and because of the extent to which short-sighted and self-centred motives dominate individuals and lead them to choose immediate material and personal comforts rather than more distant human and racial ideals.

AGRICULTURAL IMPLICATIONS OF THE POPULATION PROSPECT IN THE U.S.A.

O. E. BAKER

Bureau of Agricultural Economics, Washington, D.C.

THE great problem of the Orient is how to prevent a further increase of births and, if possible, induce a decline; the great problem of the Occident is in my opinion how to prevent a further decline of births, and, in some countries, induce an increase; and the great problem of the world is how to adjust population to the natural resources and the stage of technique in their utilization, so that both the present and the future welfare of the people will be promoted.[1] This morning I should like to consider with you, if I may, certain aspects of this problem in the United States of America, particularly the relation of agricultural production to consumption, of future supply to demand.

THE POPULATION PROSPECT IN THE UNITED STATES

It is clear from Professor Whelpton's address that in northern Europe and the United States the future, relative to population, so far as it is possible to envisage it with confidence, must be divided into two periods—a period of practically stationary population and a period of rapid decline. The first period, however, will lead gradually into the second, consequently any date that may be suggested as the line of separation must be considered only approximate. Moreover, during the next few years particularly, the increase of population, though slow, will have a material effect upon the demand for farm products; while the decline in population after the peak is reached will exert an influence increasing with the passage of time.

In the United States, using the lowest of the estimates made by Thompson and Whelpton, the population will continue to increase until 1956, when it will reach a maximum of about 136,500,000, which is 10,000,000 more, or 8 per cent. higher, than the 126,500,000 people in the nation to-day. By 1980 it will have declined to 126,500,000, or about the same population as to-day (Fig. 1). According to this estimate the population of the nation will remain almost stationary for fifty years to come. During the latter half of this fifty-year period

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[1] It is just as important, of course, to adopt the technique in utilization of resources and the social and economic organization of the nation to the needs of population.

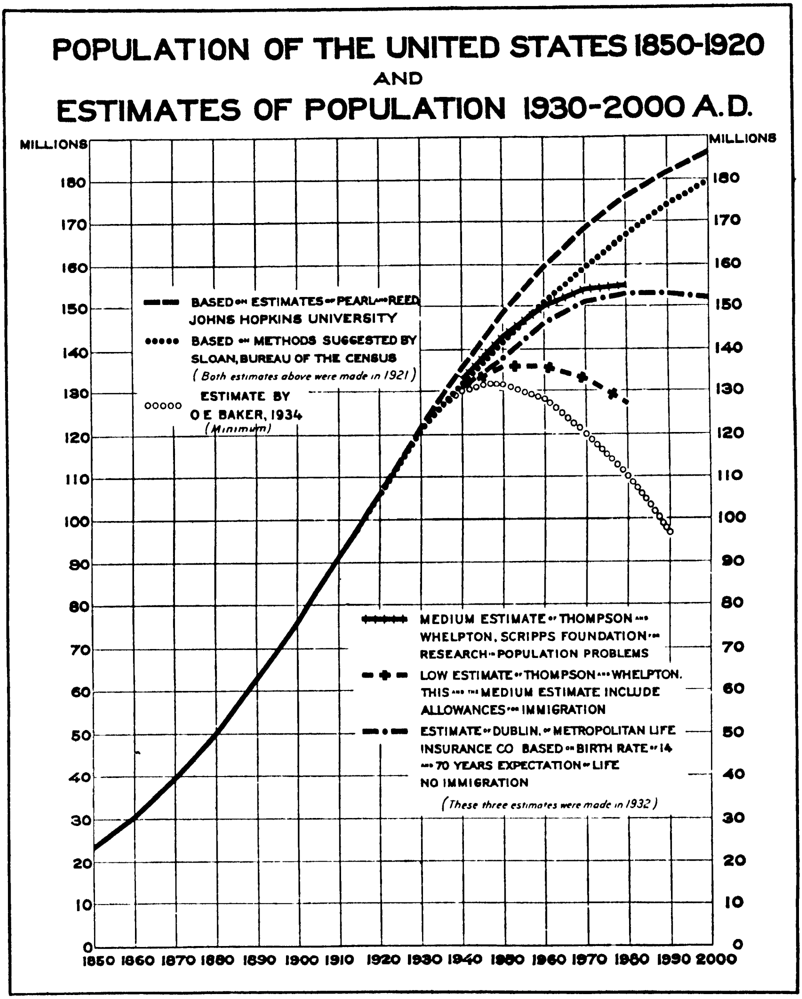

FIGURE 1. In 1921 Pearl and Reed, of Johns Hopkins University, projecting population trends on the basis of a logistic curve, estimated that the population of the United States would be about 190,000,000 by the year 2000, and would increase for several decades thereafter. But births started to decline in 1922, and by 1932 an estimate made by Dublin, also the medium estimate of Thompson and Whelpton, indicated that the population of the United States probably would never exceed 156,000,000 and that the stationary condition would be reached about 1980. The Thompson and Whelpton minimum estimate indicated a maximum population of 136,000,000, about 1957. This minimum estimate appears now the safest, although the figure for January 1, 1934, exceeds the actual population by about 300,000. Should the average decrease of 60,000 in number of births each year during the past decade continue, and should immigration be balanced by emigration, the population of the United States will reach a maximum about 1947, and then begin to decline. But the decline will be slow for a decade or more. The prospect is that the population of the Nation will not diverge 10 per cent. from the present number within the next 25, possibly 50, years.

population will be decreasing, but at a gentle rate. Although the estimate does not extend beyond 1980, it is clear that the decrease will become more rapid afterward.

This lowest estimate, made by Thompson and Whelpton two years ago, has proven slightly too high because of the extraordinary decline in births meanwhile, as Professor Whelpton has told you. Although this decline is, from the standpoint of the past, indeed extraordinary, it is not certain that, looking to the future, it will prove to be extraordinary. I was therefore constrained, while writing this paper, to improvise very hastily another estimate particularly with a view to testing out this division of the future into a stationary period followed by a period of rapidly declining population. I assumed that the number of births in the United States would continue to decrease yearly by the same average number as during the last ten years (which include six years of prosperity as well as four years of depression), namely, 60,000 less each year than in the year preceding, until births were balanced by deaths. Deaths, I assumed, would remain unchanged, although there will doubtless be a material increase in number; and immigrants, I assumed, would balance emigrants. On these assumptions I found that the population of the United States would reach a peak of about 132 millions by 1947, which is only 4 to 5 per cent. more than at present. For the period after this date of maximum population I took Miss Leybourne's estimate of the future population of Great Britain, where the population is already almost at the maximum, and applied the percentage decline each decade to the estimated population of the United States in 1947. This led to a rough estimate of 128 millions population by 1957, about 120 millions by 1967, only 110 millions by 1977, and about 96 millions by 1987 (Fig. 1). If the extreme assumption be made that births will continue to decrease until a stationary population is reached by the same number as during the depression, namely, 100,000 a year, the peak of population in the United States would be attained in 1941; but the figures just given, using Miss Leybourne's estimates for the percentage rate of decline in Great Britain, would be diminished by only a few million.

Even according to these less conservative estimates, if such they may be called, the population of the United States will remain for a quarter of a century within 5 per cent. of the present number, i.e. will be practically stationary. But a half-century hence the population would have fallen by 20 per cent., and a very rapid decline would be in progress. According to any reasonable estimate, therefore, there is a period of stationary population ahead of us, probably of a quarter to a half-century in duration, which may be followed by a rapid decline.

AGRICULTURAL IMPLICATIONS: THE NEAR FUTURE

In considering the agricultural implications of the population prospect, it is necessary, therefore, to distinguish between the near and the remote future. What will a stationary population mean, and what will a rapidly declining population mean to American agriculture?

Let us consider the implications relative to the near future from the standpoint first of consumption and then of production of farm products. By near future let us refer to the period of more or less stationary population, which seems likely to last twenty-five to fifty years.

The Outlook for Domestic Consumption. First of all, a stationary population implies a more or less stationary domestic consumption of farm products, considered in the aggregate, provided consumption per person remains about constant, which is the prospect, judging by past experience. Although great changes have occurred in the diet of the American people, particularly after the World War, notably a large increase in use of sugar, pork, and green vegetables, a considerable increase in the use of milk, and a decrease in use of cereals and beef, the aggregate consumption *per capita* of all foodstuffs during the past third of a century has never been more than a few per cent. above or below the pre-war five-year level (Fig. 2). This is true whether foods are combined on a basis of calory value, farm price, or crop acreage required to produce them. Although the people shifted their diet from the cheaper cereals to the more expensive vegetables and pork, they also ate less of the expensive beef and more of the cheap sugar. The *per capita* consumption of milk and dairy products has increased, apparently, about 7 per cent.[2] Because of this approximately stable *per capita* consumption, the total consumption of foodstuffs has tended to keep step with population growth. Of the non-food products, the *per capita* consumption of cotton remained remarkably constant for a quarter of a century prior to the depression, that of tobacco more or less stationary, except for a rise during the War, while that of flax-seed increased prior to the depression, with great decrease during the depression. The consumption of farm products as a whole increased between 1920 and 1930 about the same as population, namely 16 per cent. However, the increase in population was taking place at less than half the rate at the end of the period than at the beginning. We may look forward, apparently, to an increase in domestic consumption of farm products corresponding to the increase of

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[2] The Bureau of Agricultural Economics is revising its estimates of farm products. Fig. 2 was based on old estimates. The changes have not been great except in the case of milk, for which the revised estimates are materially lower.

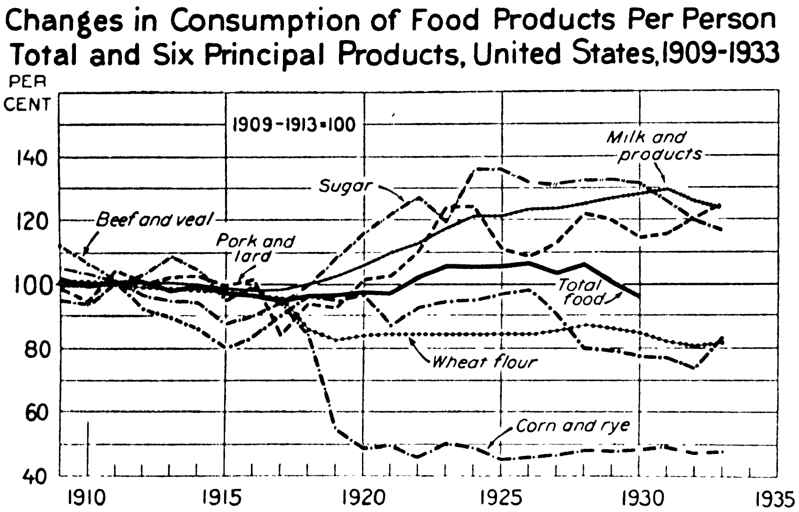

FIGURE 2. The World War worked significant changes in the diet of the American people. Perhaps of equal importance was the prohibition amendment to the Constitution, the prosperity of the urban people during and after the War, and the food education articles and advertisements in the popular magazines. The result prior to the depression was a decline of about 80 pounds per person since the pre-war years in consumption of cereal foods, and an increase of about 25 pounds per person in the consumption of sugar; also a notable increase in the consumption of pork, probably of milk also, and perhaps an equal increase in use of the leafy vegetables. During the early depression years, 1930 and 1931, the consumption of milk continued to increase, but in 1932 and 1933 a decrease occurred. The use of sugar and of vegetables has also declined, apparently, but of pork has been well maintained. Since the graph was prepared a revision of the estimates of milk production indicates an increase in *per capita* consumption of about 7 per cent. since 1909-13 instead of 25 to 30 per cent., as shown. Little change is indicated for the other foods. For total food a slight decline is indicated.[3]

population, that is, to a total increase of between 5 and 10 per cent., possibly 15 per cent., between now and the maximum of population, ten to twenty years, possibly thirty years, hence.

Influence of Age Composition. But this almost stationary population which is developing will be a different population from that in the past, having different needs relative to certain farm products. As Professor Whelpton has pointed out, there will be far fewer children and many more old people (Fig. 3). In the United States during the four years since the census was taken, the number of births has decreased about 12 per cent., the number of children under 5 years of age has decreased about 9 per cent., and the number of children 5 to 10 years of age has decreased about 7 per cent. By 1940 there may be 20 per cent. fewer children under 5 years of age than in 1930, and possibly 15 per cent. fewer under 10 years of age than in 1930. By 1950 the number of children and young people under 20 years of age may have fallen 10 per cent. more. At the other extreme of life, there were 34 per cent. more people over 65 years of age in 1930 than in 1920, and approximately this rate of increase will continue for two or three decades.

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[3] The quantities of the various foodstuffs have been combined on the basis of the average farm price during the years 1917-26 (the decade preceding the beginning of work on the preparation of the index).

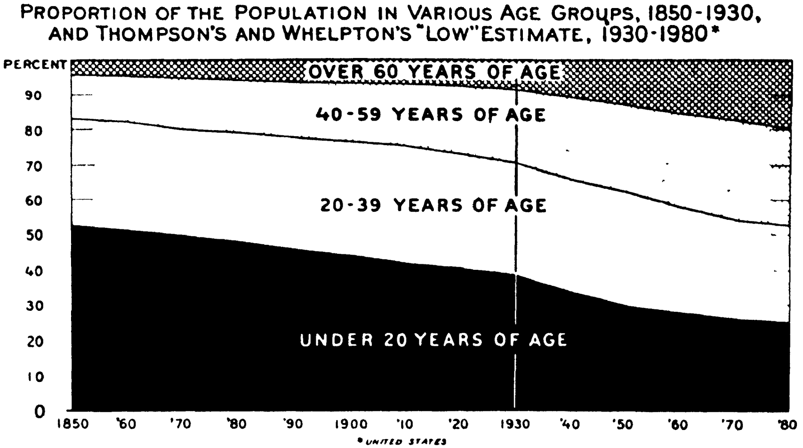
PROPORTION OF THE POPULATION IN VARIOUS AGE GROUPS, 1850-1930, AND THOMPSON'S AND WHELPTON'S "LOW" ESTIMATE, 1930-1980*

FIGURE 3. In 1870 over half the population was under 20 years of age, but in 1930 less than 40 per cent. By 1950 these children and young people probably will constitute only 30 per cent. of the population, and by 1980, or before, only 25 per cent. In 1870 about 5 per cent. of the population was over 60 years of age. By 1930 the proportion had risen to 8·6 per cent. By 1950 these old people will constitute 13 per cent. of the population, and by 1980 probably 20 per cent. In 1870 about 45 per cent. of the population was between 20 and 60 years of age, which may be considered the productive years of life, taking the people as a whole. By 1930 people in these productive ages constituted 52·6 per cent. of the total population. By 1950 they will constitute about 57 per cent., and by 1980 perhaps 55 per cent. During the next five decades, when population will be almost stationary, a larger proportion of the population will be of productive age than in the past, or, probably, in the more distant future.

Undoubtedly children consume more milk *per capita* than old people, how much more is unfortunately not known, but probably 50 to 100 per cent. more per person.[4] The decline in milk consumption since 1931 is owing not only to the economic depression and return of beer, but also in all likelihood to the lessening number of children. As yet, however, the effect of this decline in children is small. Likewise, the consumption of eggs is probably greater among children than among adults. The Bureau of Home Economics in the U.S. Department of Agriculture recommends twenty dozen eggs a year for children under 10 years of age in both the 'adequate diet at minimum cost' and that at 'moderate cost', whereas for adults, both male and female, whether moderately active or very active, only fifteen dozens are recommended. How far these recommendations diverge from actual consumption is not known.

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[4] Based on four studies of consumption in families classified by number of children: Waugh, Fred V., *The Consumption of Milk and Dairy Products in Metropolitan Boston,*

On the other hand, the use of cereals by children under 10 years of age recommended by the Bureau of Home Economics is considerably less than that recommended for a moderately active woman and less than half that for a moderately active man. Although the actual consumption of bread and other cereals by children and by adults is not known, the ratio is probably not far from that in the 'adequate diet at minimum cost' described by the Bureau of Home Economics. Likewise of sugar the quantity recommended by the Bureau of Home Economics for an adult woman averages a half larger, and for an adult man twice that recommended for children 10 years of age. The ratios for consumption of lean meat and of fats (butter, lard, oils, bacon, salt pork) at varying ages are similar. Of the fruits and vegetables also adults probably eat more than children. The decrease in number of children, therefore, seems likely to produce a much greater effect on the consumption of milk and eggs than on the consumption of bread, sugar, meat and the fats, the fruits, and vegetables. Since the number of adults will continue to increase rather rapidly for a quarter of a century to come, it appears probable that the consumption of cereals, sugar, meat and the fats, and, to a less extent, of the vegetables and fruits, will continue to increase for some years after the population of the nation begins to decline. There are about 80 million people in the United States to-day 20 years of age or older, and by 1940 there will be about 87 million, by 1950 about

December 1930, published by New England Research Council, 1931, p. 13. Howe, C. B., and Waite, W. C., *The Consumption of Dairy Products in Seven Metropolitan Cities of New Jersey*, New Jersey Agricultural Experiment Station, New Brunswick, 1932, p. 70. Waite, W. C., and Howe, C. B., *The Consumption of Dairy Products in Six New Jersey Townships*, New Jersey Agricultural Experiment Station, New Brunswick, 1930, pp. 18 and 19. Cowden, T. K., and Sturges, Alexander, *Consumption of Fluid Milk and Other Dairy Products in Philadelphia, Pennsylvania, June 1934*, Pennsylvania Agricultural Experiment Station, State College, Tech. Paper No. 659, p. 20.

95 million, and by 1960 about 98 million, which will be about the peak. Any increase that may occur in the consumption of milk and eggs seems likely to depend primarily, perhaps wholly, on increasing use by persons over 20 years of age.

The probable influence of the changing age composition of the population upon the consumption of the non-food farm products is more difficult to forecast. It appears probable that children use more cotton goods than old people, who tend to use silk, rayon, and wool. On the other hand, of course, children consume almost no tobacco.

Outlook for Exports. In the countries of north-western Europe, except the Netherlands and Denmark, the prospect is that population will be stationary within a few years and later begin to decline, as explained by Professor Whelpton. In view of the probable continuation of progress in agricultural technique and in production of foodstuffs, it would appear likely that exports of such products from the United States to north-western Europe will not increase greatly, and of some commodities may decline. The recognition by the governments of Europe of the fact that the farmers and peasants are providing not only most of the foodstuffs, except in England, but also a large proportion of the youth, so essential to the future welfare of the nation, seems likely to result in continued protection of the agricultural interests. On the other hand, since Europe raises practically no cotton, it is possible that the imports of this commodity may increase as prosperity returns. This may prove true in the Orient also. Cotton exports from the United States have been well maintained during the depression and now constitute about three-fourths of the total exports of farm products measured in value (Fig. 4). But the production of cotton requires only about 11 per cent. of the total crop acreage in the United States. An increase in the production of cotton would exert little influence on land utilization outside the cotton belt. On the whole, the approach of a stationary and later probably declining population in north-western Europe casts a cloud over the prospect of increasing exports of farm products from the United States.

Considering the prospect for exports as well as for domestic consumption, it is my opinion that the consumption of American farm products as a whole will remain about stationary for a quarter of a century. But those products which are consumed by children in larger quantities per person than by adults are likely to experience a declining demand; while those products which adults consume more largely than children are likely to enjoy an increasing demand for two or three decades.

Outlook for Production. Since the early years of the twentieth century agricultural production in the United States has not kept pace with the progress of population (Fig. 5). Consumption of farm products per person has not declined, however, because more of the production has been consumed at home and less has been exported abroad. At the beginning of the twentieth century the exports of farm products required for their production nearly one-fourth of the total crop acreage, whereas during the last five years only about one-eighth has been required.

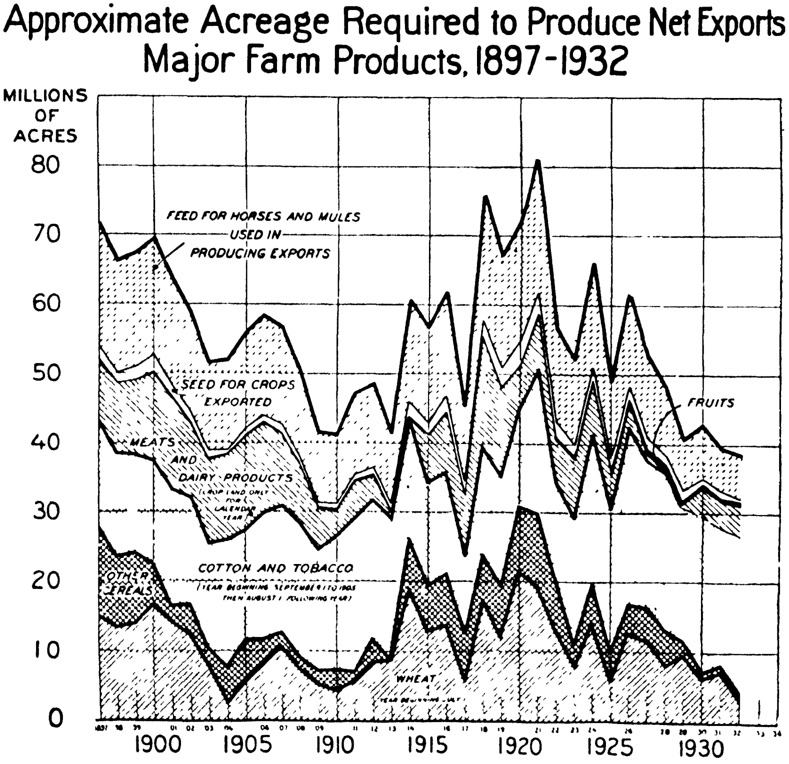

FIGURE 4. The acreage required to produce the agricultural exports from the United States has been lower during the last three years than in any previous year since the beginning of the century. The crop acreage required to produce the exports of meat, mostly pork and lard, for six years has been only a few million acres, and this is now true of wheat also. Cotton now constitutes three-fourths of the exports of farm products, and the United States is now providing almost as large a proportion as ever of the world's consumption of this crop.

The course of agricultural production in the United States during the past twenty years may be divided into four periods. The first period may be called the War period. It extended from 1914 to 1921. During this period the trend of agricultural production remained almost horizontal. With so many young farmers in training camps and with farm organization so disturbed, the farmers did well to hold production stationary. It was a period of high prices for farm products. This stationary production persisted until 1921, which was a season of unusually adverse weather conditions. Production fell almost as low in 1921 as in 1917.

Agricultural Production, Crop Land, Farm Labour, and Population 1897–1934

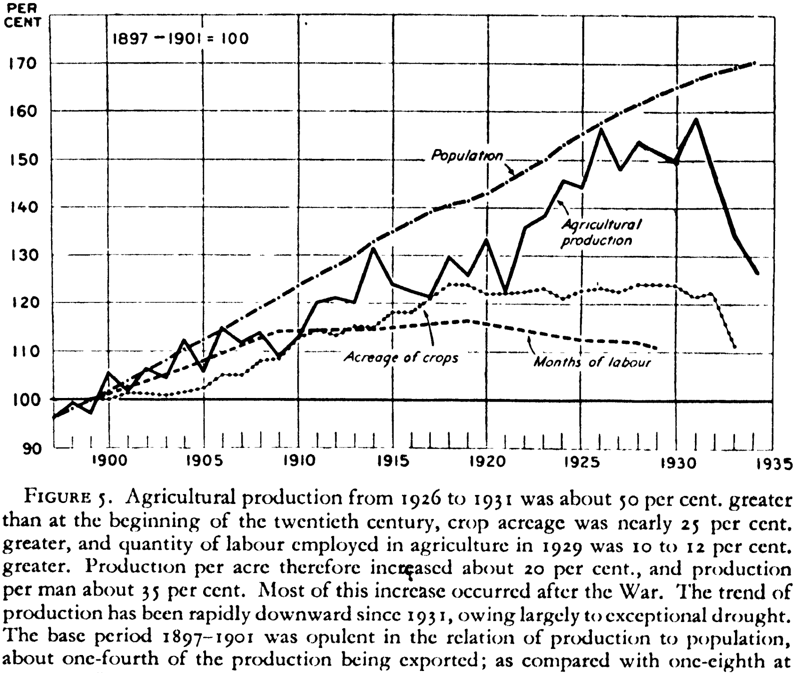

FIGURE 5. Agricultural production from 1926 to 1931 was about 50 per cent. greater than at the beginning of the twentieth century, crop acreage was nearly 25 per cent. greater, and quantity of labour employed in agriculture in 1929 was 10 to 12 per cent. greater. Production per acre therefore increased about 20 per cent., and production per man about 35 per cent. Most of this increase occurred after the War. The trend of production has been rapidly downward since 1931, owing largely to exceptional drought. The base period 1897–1901 was opulent in the relation of production to population, about one-fourth of the production being exported; as compared with one-eighth at present. Consumption *per capita* has been well maintained, except during the War years, when the decline in consumption was attributable mostly to foods, and during the depression years, when the decline is largely attributable to non-foods—cotton and flax particularly.

The second period extended from 1921 to 1926. From the low point in 1921 to the high point in 1926, agricultural production increased 27 per cent., but comparing the 1914–21 average with the 1926–31 average the increase becomes only 21 per cent. This was a rate 50 per cent. more rapid than that of population increase. In 1926 the ratio of production to population again touched the level

3. Likewise, there was a shift from the less productive classes of live stock per unit of feed consumed toward the more productive classes, i.e. from beef cattle and sheep toward dairy cattle, swine, and poultry (Fig. 7). Beef cattle and sheep require several times as much feed to produce the same amount of human food, measured in calories, as do dairy cows, swine, and poultry. This change in relative importance of the classes of live stock resulted in an increase of production during the five years probably equivalent to that from about 5 million acres of average crop land.

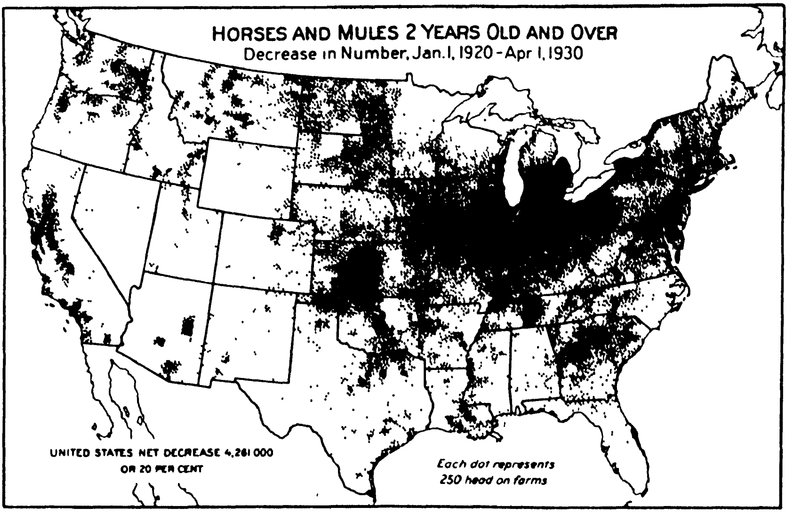
HORSES AND MULES 2 YEARS OLD AND OVER
Decrease in Number, Jan. I, 1920 - Apr I, 1930
UNITED STATES NET DECREASE 4,281 000
OR 20 PER CENT
Each dot represents
250 head on farms

FIGURE 6. This map shows only the decrease in mature horses and mules between the Census years 1920 and 1930. The decrease was proportionately much greater—63 per cent.—in young stock. The area of crop land released by the decline in all horses and mules probably exceeded 20,000,000 acres during this decade, 1920–1930, and now amounts to about 40,000,000 acres, when calculated from the earlier peak in numbers in each State. Most of these 40,000,000 acres are now used to feed meat and milk animals.

4. The fourth factor accounting for the increase of production from 1921 to 1926 was the increasing production of meat per unit of feed consumed by hogs, by sheep, and by poultry, and of milk per unit of feed consumed by dairy cows. Between January 1, 1921, and January 1, 1926, the number of hogs on farms decreased 11 per cent., but the production of pork and lard was 12 per cent. greater in 1926 than in 1921. Comparing the five years centred on 1921 with those centred on 1926 we find a decrease of 7 per cent. in number of hogs on farms, January 1, and an increase of 10 per cent. in production of pork and lard. This increase in production per hog has undoubtedly

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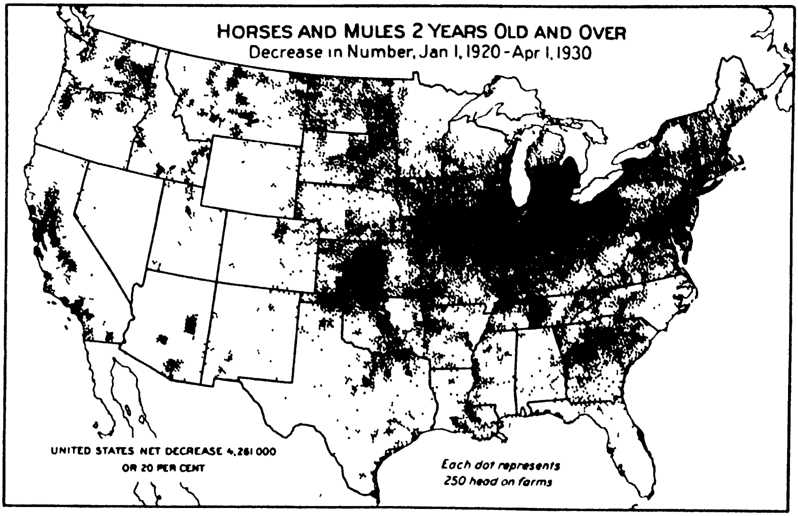
HORSES AND MULES 2 YEARS OLD AND OVER
Decrease in Number, Jan 1, 1920 - Apr 1, 1930
UNITED STATES NET DECREASE 4,261 000
OR 20 PER CENT
Each dot represents
250 head on farms

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been accompanied by increasing efficiency in utilization of feed by swine.[5] The increase has been in progress for at least 20 years and is due to better sanitation methods which have reduced mortality, to the hog cholera serum and other advances of science, to better feeding practices, including the use of legumes and minerals, and to other improvements in animal husbandry. Likewise with dairy cows, the number on farms increased less than 4 per cent. between 1921 and 1926, while the production of milk increased between 10 and 20 per cent. It is doubtful if the consumption of feed increased half as rapidly as the production of milk. The cow-testing associations and other agencies promoting improved practices in dairy husbandry evidently exerted a significant influence.

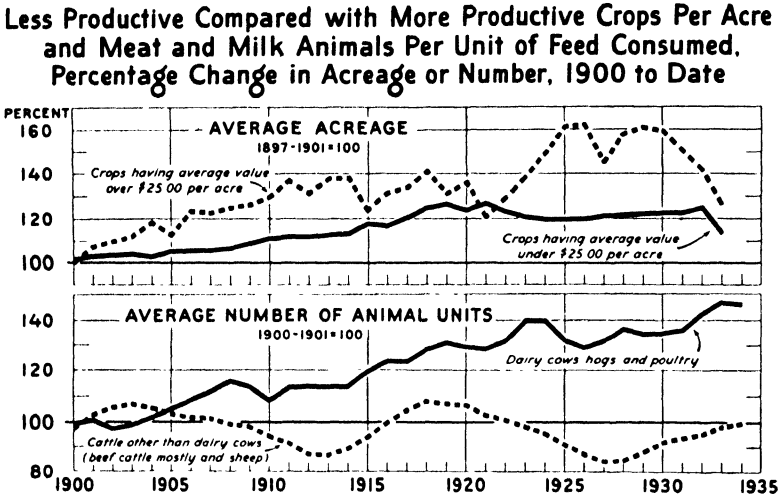

FIGURE 7. The acreage of crops having a high average value per acre (over $25 during the period 1925-9) has increased more rapidly than that of crops having a lower average acre-value. From 1921 to 1925 the increase in acreage of the more valuable crops was notable. Since 1930 the depression has led to a decline in acreage of cotton, the most important of the high-value crops. Likewise the increase in number of dairy cows, hogs, and chickens has been much greater than of beef cattle and sheep, which produce less human food per unit of feed consumed. As a consequence, production per acre has increased.

These four factors apparently induced an increase of production between 1921 and 1926 equivalent to the average crops on fully 40 million acres of land, and during the entire decade preceding the depression equivalent to probably 65 million acres of crop land. But during the depression the influence of these factors has been much less; indeed the direction of influence of the second factor has been reversed, i.e. the trend has been from the more productive to the less productive crops per acre.

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[5] The trend of crop feed production was stationary from 1915 to 1930, and after allowing for the feed released by the decline in horses and mules, the quantity remaining for meat and milk animals did not increase half as fast as the production of animal products. Estimates made of the quantity of feed consumed by beef cattle, dairy cattle, swine, sheep, and poultry indicate that this increase in efficiency in utilization of feed occurred in all these classes of farm animals, except that it was very slight among beef cattle.

It is interesting to observe that the Agricultural Adjustment Administration programme has tended to encourage the less intensive use of the land. In the south the cotton acreage has been greatly reduced. Some of this land lies idle and some has gone into corn and forage crops. The wheat acreage in the west has been reduced also. Some of the former wheat land lies idle and some has gone into pasture and less productive uses. This year an elaborate campaign was instituted to reduce corn acreage, particularly in the Corn Belt, but it has been modified because of the very extensive and severe drought. The programme for reduction of corn acreage is associated with a programme for reduction in number of hogs. The Agricultural Adjustment Administration has endeavoured also to shift the production of animal products from the more efficient toward the less efficient classes of animals in the use of feed. Last fall several million little pigs were bought and converted into fertilizer, and educational efforts have been exerted towards reduction in the number of dairy cows. Meanwhile we are in the upward segment of the beef cattle cycle. The drought, however, may reduce greatly the number of cattle.

The land released during the depression by the continued decline in horses and mules has probably been more than counterbalanced by this shift from the more productive toward the less productive uses of land, and from the more productive toward the less productive classes of live stock, while the increasing number of colts suggests that by 1940, if not before, the number of horses and mules may be increasing again. It requires more land to feed a horse than it does a human being. Moreover, the trend toward increasing production per animal has been reversed temporarily. Milk production per cow and egg production per hen are lower this summer than in any summer during the nine years for which records are available.

Trend in Crop Yields. The decline in importance of these factors that explain the extraordinary increase of agricultural production from 1921 to 1926, and the reversal in the influence of at least one of the factors during the depression, has been supplemented by a notable decline recently in acre-yield of several crops (Fig. 8). The trend in the acre-yield of corn has been downward since 1920 or 1921, while that of wheat and hay has been stationary from about 1905 until recently. Acre-yields of oats were about stationary from 1922 to 1930, following a notable decline from 1917 to 1921. In 1933 the average acre-yield of wheat was lower than in any previous year since 1893, of corn than in any year since 1901, except 1913 and 1930, and of oats the acre-yield was the lowest on record. Small grain yields will be still lower in 1934. Hay yields this season are lower than ever before. The wheat and hay crops in 1934 almost certainly will be the smallest in forty years. But the acre-yields of cotton have been tending upward since 1923, after a devastating decline beginning about 1912, attributable largely to the boll-weevil. However, the amount to be ginned in 1934 is limited by law to 10 million bales, which is a smaller crop than in any year of the past decade.

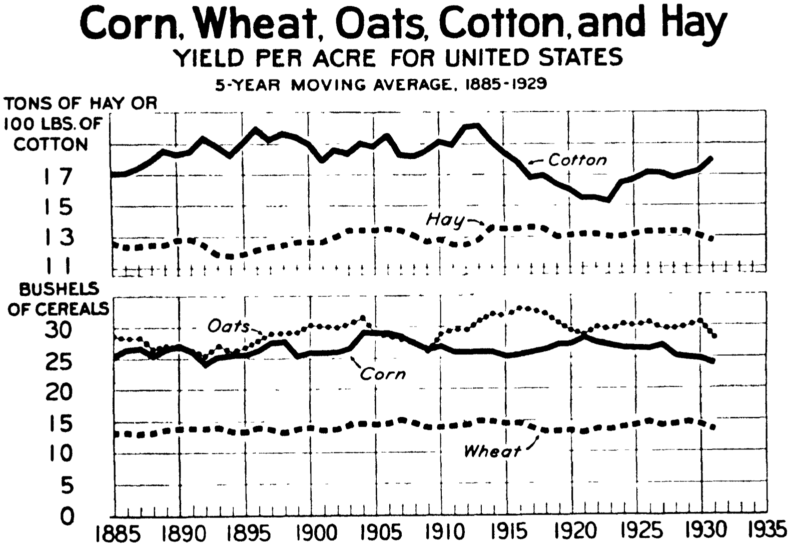

FIGURE 8. The acre-yields of wheat in the United States as a whole have changed little for 40 years, except for an occasional abnormal year. It is worth noting, however, that owing to drought in 1933 and 1934, the acre-yields were lower than in any year since 1881. The acre-yields of corn have trended downward during the last decade. During the last five years acre-yields averaged lower than in any preceding five years since the Civil War, though they were almost as low in 1890-4. The acre-yields of oats have been fairly well maintained, but in 1933 and 1934 were the lowest on record. The acre-yields of cotton trended downward as the boll weevil extended its ravages, but in 1931 and 1933 were notably high. The average acre-yield of hay has increased largely because of shifts from the less productive grasses to the more productive legumes. In 1930, 1931, 1933, and 1934, however, yields were low.

These low yields of grain and hay are due primarily to drought of extraordinary extent and severity, but weather conditions appear scarcely adequate to explain the downward trend in acre-yields, principally of corn, oats, rye, and the grain sorghums, during the past decade or longer.[6] Apparently the depletion of soil fertility by erosion and crop removal, accompanied by a decline in the organic content of the soil in many parts of the United States, has proven as potent in affecting the average crop yield for the country as a whole as all the improvements in agricultural technique, including the use of artificial fertilizers. However, the use of fertilizers has declined during the depression. The forces of the research and extension services, plus the powerful aid of the agricultural press, have only counterbalanced the forces tending toward depletion of soil fertility during the past quarter of a century.

Depletion of Soil Resources. Looking to the future, it is not certain that the farmers, with the aid of the various agencies, will be even as successful as in the past in counteracting the effects of soil depletion upon acre-yields of the crops, considering the nation as a whole, unless higher prices of farm products permit extensive use of fertilizers on the less erosive lands, for the depletion of soil fertility by erosion is advancing at an accelerating rate. The Secretary of Agriculture in his annual report for 1933 makes the following statement:

> 'Unrestrained soil erosion is rapidly building a wilderness of worn-out land in the United States. The wastage speeds up with the removal of the absorptive topsoil down to the less absorptive, more erosive subsoil. Approximately 35,000,000 acres of formerly cultivated land have been essentially destroyed for crop production; 100,000,000 acres of land now in crops have lost all or most of the topsoil; 125,000,000 acres of land now in crops are rapidly losing topsoil; and an additional area is suffering from erosion in some degree.'

These figures indicate that an area equal to nearly one-tenth the present crop area of the United States has been destroyed, so far as crop production is concerned, by erosion, about one-quarter of the present crop land has lost all or most of the topsoil, while a third is rapidly losing its topsoil. It may help to visualize the extent of the destruction to note that the 35,000,000 acres already rendered untillable are equal in area to all the crop land and ploughable pasture of New England, New York, New Jersey, Maryland, and Delaware. Erosion has been most severe, however, in the south, owing in part to the fact that the two dominant crops, cotton and corn, are intertilled, which results not only in exposure of the soil to the rain and wind during most of the season, but also in lowering the organic matter in the soil, and organic matter is very important in retarding erosion (Fig. 9). In addition, the rainfall is heavier in the south than in the north, and as the soil is not frozen nor covered with snow during most of the winter, erosion can occur throughout the year.

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[6] It is interesting to observe that the acre-yields of wheat and cotton, the two crops which have expanded notably into the drier portions of the Great Plains, show no decline in the nation as a whole prior to 1932. Apparently the more fertile soil in the case of wheat, and both better soil and greater freedom from injury by the boll-weevil in the case of cotton, have fully counterbalanced the frequently deficient moisture in the Great Plains region.

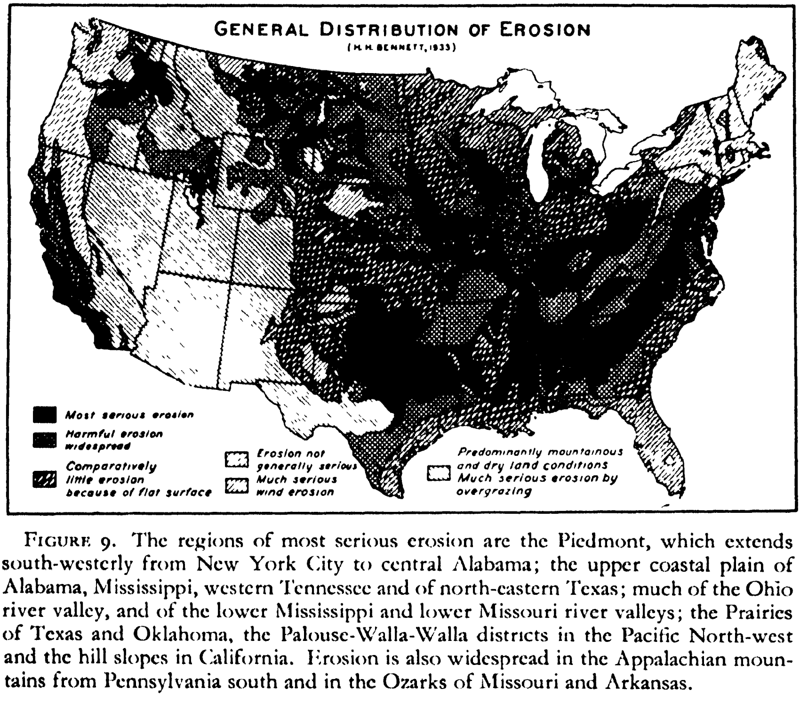
GENERAL DISTRIBUTION OF EROSION
(H. H. BENNETT, 1933)
Most serious erosion
Harmful erosion widespread
Comparatively little erosion because of flat surface
Erosion not generally serious
Much serious wind erosion
Predominantly mountainous and dry land conditions Much serious erosion by overgrazing

FIGURE 9. The regions of most serious erosion are the Piedmont, which extends south-westerly from New York City to central Alabama; the upper coastal plain of Alabama, Mississippi, western Tennessee and of north-eastern Texas; much of the Ohio river valley, and of the lower Mississippi and lower Missouri river valleys; the Prairies of Texas and Oklahoma, the Palouse-Walla-Walla districts in the Pacific North-west and the hill slopes in California. Erosion is also widespread in the Appalachian mountains from Pennsylvania south and in the Ozarks of Missouri and Arkansas.

In Oklahoma a recent survey revealed that of the 16 million acres of crop land in the state (including land which was formerly in crops) nearly 6 million acres had reached the stage of gullying, and that about 1,400,000 acres had been abandoned largely because of erosion.[7] There was a decrease of over 10,000 farms in south central and south-eastern Oklahoma between 1920 and 1930, and of almost as many more in north central and north-eastern Texas, where erosion is also becoming severe. It is the opinion of the experiment station workers in Oklahoma that fully two-thirds of the erosion losses in this state have occurred during the last ten years. In the Piedmont of Georgia and the Carolinas erosion has been in progress for a much longer period. Dr. Bennett, of the Bureau of Chemistry and Soils, states that 'probably not less than 60 per cent. of the upland . . . has lost from 4 to 18 inches of its soil and subsoil . . . (and) many of the gullies have cut down to bed rock'.[8] In the Georgia and South Carolina portions of the Piedmont area depletion of soil fertility, in association with the advance of the boll-weevil and other factors, has exerted a devastating effect. The number of farms in the area decreased 50,000 between 1920 and 1930. In some counties nearly half the farm population migrated to the cities or to other parts of the country. Undoubtedly erosion was a factor also in inducing migration in much of North Carolina and Virginia, in Kentucky, Tennessee, and Arkansas, and even in parts of Missouri, southern Iowa, and Illinois. In Illinois there are at least 9 million acres of low value land subject to serious erosion, more than one-half of which is hardly suitable for cultivated crops, and there are more than 14 million acres of high value land in which erosion is gradually approaching a stage where gullies are being formed.[9]

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[7] *Soil Erosion Survey of Oklahoma*, *Extension Service*, Agricultural and Mechanical Arts College, Stillwater, 1929, p. 2. The survey was made by the Experiment Station.

At the Missouri Agricultural Experiment Station measurements on a gently sloping field, typical of the soil and slope of much of the northern portion of the state, show a loss of over 245 tons of soil per acre continuously in corn during the twelve years the experiment has been in progress, 111 tons from land continuously in wheat, but of only 35 tons from land in a rotation of corn, wheat, and clover, indicating that the surface soil, averaging 7 inches deep, will last for 50 to 380 years, depending upon the cropping system. If put into blue-grass pasture it would require 2,800 years to remove the top 7 inches of soil, which may be no more rapid than the process of soil development. It is estimated that 'about one-fourth of the surface area of Missouri is subject to severe erosion, that one-fourth is subject to moderate erosion, and about one-half to light or negligible erosion'.[10]

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[8] Bennett, H. H., in *Documentary Material for the Inter-American Conference in Agriculture, Forestry, and Animal Husbandry*, Oct. 1930, p. 81. See also Progress Reports of *Soil Erosion and Run Off Experiments in Piedmont, North Carolina*, by F. O. Bartel, mimeographed by U.S. Bureau of Agricultural Engineering.

[9] Mumford, H. W., Director of Illinois Agricultural Experiment Station, in a letter to the Secretary of Agriculture.

[10] Miller, M. F., Professor of Soils, in a letter to the writer. See also *Missouri Agricultural Experiment Station Research Bulletin*, no. 63, p. 31.

During the past two dry seasons erosion by wind has developed amazing vigour in the Great Plains region. This erosion also has been facilitated, doubtless, by the depletion of organic matter in the soil as a result of cultivation. The surface soil, as deep as the plough furrow, has been removed, it is reported, from thousands of square miles. Fences have been completely covered with soil, while the accumulation of dust on the roads has had to be removed by snow-ploughs. One day this spring in Washington, D.C., more than a thousand miles away, the fine dust in the air obscured objects a mile distant, and blanketed the city in a yellow haze. This dust cloud covered most of the eastern United States, and despite a fair westerly wind it was more than a day before it cleared.

In the north-eastern states, crop removal and leaching have reduced the fertility of millions of acres, particularly of land that has produced timothy hay for shipment to city markets. Reduction in soil fertility doubtless has been a factor in promoting migration from farms in these states. On the other hand, the development of dairying and egg production, and the importation of large quantities of mill feed, grain, and hay from the west for the cows and chickens, has doubtless resulted in improving the soil on many dairy and poultry farms. A vast transfer of the elements of soil fertility from the wheat regions and the Corn Belt to the dairy farms of the north-eastern states is in progress. However, in the humid northern states, considered as a whole, the losses from the surface soil since settlement average possibly a third of the original sulphur, a fourth of the nitrogen, a fifth of the phosphorus, and a tenth of the potassium.[11] Calcium and magnesium losses have been notable in many soils. The losses by crop removal and leaching can be restored and maintained almost indefinitely, however, if it is found profitable to do so, for the known deposits of minerals containing these elements seem sufficient for centuries to come. But during the next decade, owing to erosion losses and to the probability that the extensive use of fertilizers will come slowly, it seems likely that acre-yields of the crops, taken as a whole, will not increase, as compared with the past decade, and may continue to decline.

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[11] This is an audacious generalization. It is based, for sulphur, in part on a paper entitled 'Agricultural Aspects of Sulphur and Sulphur Compounds', by J. G. Lipman and H. G. McLean, *Chemical and Metallurgical Engineering*, vol. xxxviii, no. 7 (July 1931); for nitrogen, phosphorus, and potassium on analyses of cropped and adjacent virgin soils of the same type, supplemented by data in a paper by Dr. Lipman entitled 'The Nitrogen Outlook', *Journal of the American Society of Agronomy*, vol. xxiv, no. 3 (1932), pp. 227–37; and for potassium by lysimeter (leaching) measurements at Cornell University.

Future Need for Farm Land. Of all the factors that influence the future need for farm land the only one that can be estimated quite closely for one or two decades is the population of the nation. It is practically certain that between now (August 1934) and January 1, 1940, the increase of population will be 3 to 5 millions, or 3 to 4 per cent., and between 1940 and 1950 population may increase 2 to 5 millions more. At 2½ acres of crops harvested per person (excluding exports) this means that 8 to 12 million more acres of crops will be needed by 1940, and 12 to 25 million acres by 1950, other factors remaining equal. If crop yields per acre should decline or exports of farm products increase more land would be needed. If the diet should shift from animal products toward more cereals or sugar, or if the exports of farm products should decline further, less land would be needed. However, *per capita* consumption of farm products, considered as a whole, has changed very little during a third of a century, and it appears likely that a new level in exports of farm products has almost been reached. Considering changes in technique of production, it is inevitable that the number of horses and mules will decline for several years to come owing to insufficient number of colts to balance deaths; but the land thus released may be counterbalanced by shifts from the more productive toward the less productive crops per acre under the surplus control programme, and the reversion of some crop land to pasture. It is certain that the soil resources of the nation are being depleted rapidly, particularly by erosion, but this may be partially counterbalanced by the use of fertilizers on the less erosive lands.

On the whole, it appears probable that by 1940 several million more acres of crop land would be needed to supply the American people with their present *per capita* consumption of farm products and maintain the present exports. But the present *per capita* consumption may not be maintained, and a shift back may occur toward the more productive crops per acre, or the more productive live stock per unit of feed consumed, though this is less likely. Moreover, this estimate is a net figure for the nation as a whole. Many millions of acres of land will doubtless go out of use for crops in certain regions, and many millions of acres come into use for crops in other regions.

Between 1920 and 1930 the decrease in area of harvested crops exceeded 32 million acres in 1,940 counties reporting a decrease, located mostly in the originally forested eastern and southern portion of the United States. The outstanding decrease was in the Piedmont of Georgia and South Carolina and in a belt extending from southern

New England across New York, southern Michigan, Ohio, southern Indiana and Illinois, and most of Kentucky and Missouri, to eastern Oklahoma and central Texas (Fig. 10). Part of this land is used for pasture, part lies idle, and part is growing up to bush or forest. The soils in these areas are, in general, poor or fair, but some are good. Much of the land is hilly or steeply rolling, and erosion has taken a heavy toll. These conditions, as well as the fact that many of the farms are small, has resulted in systems of farming poorly adapted to large-scale machinery, and, where agriculture is dependent on hand labour, there is generally small production per worker.

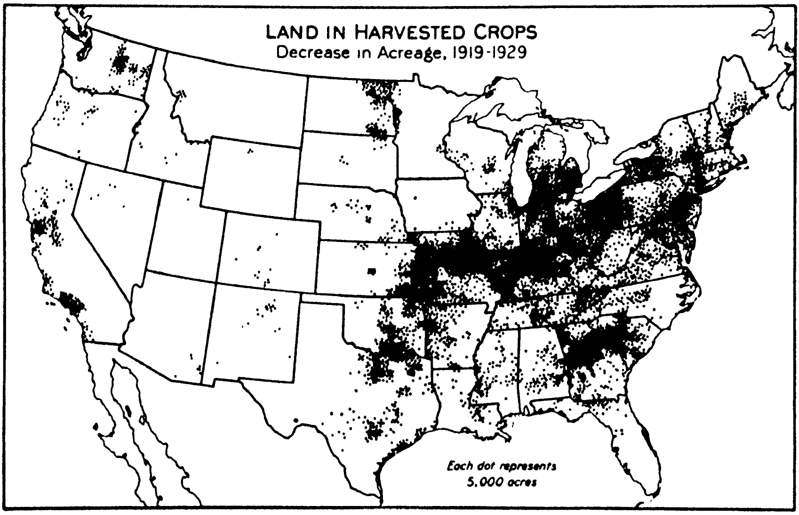
LAND IN HARVESTED CROPS
Decrease in Acreage, 1919-1929
Each dot represents 5,000 acres

FIGURE 10. A decrease in acreage of crops occurred between 1919 and 1929 in most of the originally forested portion of the United States. The decrease in the 1,940 counties reporting a decrease exceeded 32,000,000 acres. The outstanding decrease was in the Piedmont of Georgia and South Carolina, and in a belt extending from southern New England across New York, southern Michigan, Ohio, southern Indiana, southern Illinois, and most of Kentucky and Missouri, to eastern Oklahoma and central Texas. Part of this land was used for pasture, part lay idle, and part was growing up to brush. The farms in these areas generally are small, and the soils are poor or fair, but some are good. Erosion was a large factor in the decline in crop acreage in the Piedmont, Ohio Valley, and Missouri areas.

During the same decade an increase of crop land exceeding 33 million acres occurred in 1,130 counties reporting an increase, located mostly in the Great Plains region (Fig. 11). The suitability of the land, of the crops grown, and of the large-sized farms in the Great Plains to the use of power machinery made agriculture profitable despite the frequency of drought. But the very low prices for grain in recent years have brought acute distress to this region also, and drought has been exceptionally severe in many portions.

Summary of Near-Time Outlook. Looking only to the next decade or two, when population will still be increasing, it appears probable that agricultural production in the United States will increase with equal slowness, and may remain below the 1926–31 level. The divergence between the trends of population and production has become very wide (see Fig. 5). If present trends continue, there may soon be complaint in the cities of the high cost of living. Even after population begins to decline gently, it is quite possible that agricultural production may be declining more rapidly. The near-time prospect for agricultural returns in the United States, therefore, seems to me hopeful, provided the city people produce a large supply of commodities to exchange with the farmer.

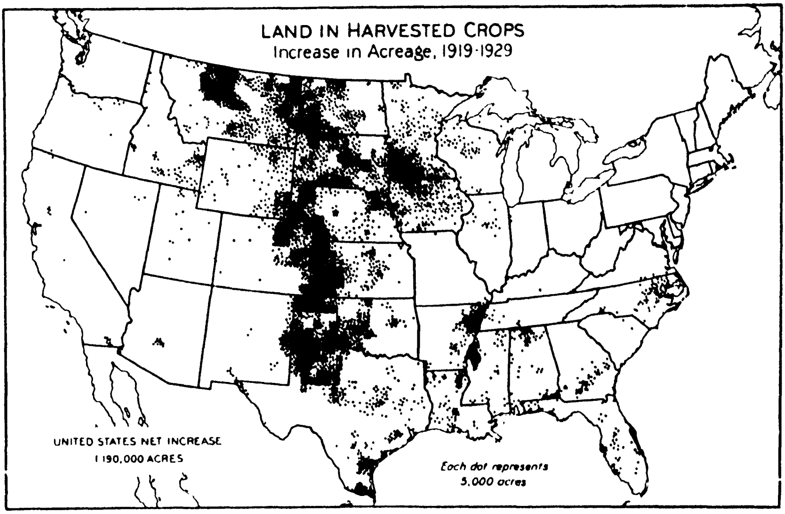

FIGURE 11. The increase in crop area between 1919 and 1929 occurred mostly in the semi-arid portion of the Great Plains Region, where the tractor, combine, and other labour-saving machinery made it possible to grow grain on the level land profitably at the prices then existing. A notable increase occurred also in south-western Minnesota and in the Mississippi River bottoms of Mississippi and north-eastern Arkansas. In both these areas much land has been drained, but most of the Minnesota gain was because of a severe drought in 1919. The increase in the 1,130 counties in the United States reporting an increase during the decade exceeded 33,000,000 acres.

They should be able to do this, since for a decade or two to come there will be a larger proportion of the population in the productive age groups (20 to 65 years old) than ever before. If heavy migration from the farms to the cities is resumed this will be true of the cities as well as of the nation as a whole. There will be fewer children to support, while time will not yet have brought the full harvest of the aged. All may seem well with the world, and the people will doubtless eat, drink, and be merry.

LONG-TIME OUTLOOK

Looking beyond the near future, the outlook for the nation as well as for agriculture becomes clouded, in my opinion even ominous. The 20 per cent. decline in births during the past decade will certainly be reflected in a declining population in the future, unless the birth-rate rises or the restrictions on immigration are greatly relaxed. If the birth-rate continues to decline and the restrictions on immigration are retained, it seems almost certain that the population of the nation will be falling faster than agricultural production a half-century to a century hence, perhaps sooner. Should this occur it may involve a long period of low prices for farm products.[12] A rapidly declining national population appears very likely to induce rural distress; and if agriculture remains largely commercial it would result in heavy migration from farms.

If migration from the farms to the cities is resumed in numbers approaching the pre-depression level, agricultural production will tend to concentrate on the more level, more fertile, or more favourably located lands, and these may be cultivated more intensively, not necessarily by more labour but mostly by the use of more capital. The poorer lands, the hilly lands, the dry lands along the arid margin of the Great Plains would revert to forest or pasture—millions of acres are reverting already. Fields cleared from the forest with incredible labour, farm buildings that remain as memorials to the hopes and the labours of brave men and women, churches and schools empty and unneeded, will be slowly concealed by the encroaching forest, and a rural civilization as fair, perhaps, as any the world has ever known, will disappear from many parts of the United States. This process has been in progress for fifty years in portions of New England. Abandoned farms are now to be found as far west as eastern and southern Ohio and southern Indiana. Fifty to one hundred years hence such a condition may characterize most of the poorer agricultural areas of the nation.

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[12] Prices may tend to rise, if the decline in population be rapid (fewer 'demanders' for a slowly increasing supply of gold), but owing to the greater difficulty of adjusting the supply of agricultural products to the demand than is the case with most industrial products, prices of farm products seem likely to rise less rapidly than those of non-farm products. As to the possible rapidity of decline of population, it should be recalled that births are now declining nearly 4 per cent. a year.

The federal government has already initiated a programme to facilitate the transfer of farm families from poor lands to better lands where they can maintain a higher standard of living. The plan is to buy their present farms and loan additional money to them with which to buy better land on long-term payments and at low interest rates. In some cases large farms will be purchased and sub-divided for this purpose. For those farmers who may not wish to continue farming other arrangements will be made.

This seems a fitting and worthy programme for the government to pursue. Although in the popular mind the major objective is to reduce agricultural production, in the minds of most students of the subject the major objectives are, I believe, the welfare of these people on poor land and the conservation of natural resources, particularly the retardation of soil erosion.

Nevertheless, one cannot but wonder how far this process will go. As the population of the nation declines, will migration from the land prove persistent, progressive, and ultimately precipitous? Or will lessened opportunity for employment in the cities compel the rural youth to remain on farms, as they have been compelled to do during these years of economic depression; and thus lead, perchance, to the development of a new rural civilization with a birth-rate sufficiently high to maintain population stationary? Or will there be a spreading out of the cities, made possible by the automobile and the electric power line, and a commingling of country and city in what our Dr. Galpin has called a 'rurban' civilization?

No one can answer these questions, but we can be sure of this, that the declining birth-rate has brought European civilization to the great turning-point in its history. And may I add the further conviction, that in any civilization which is permanent the family will be the dominant economic unit, as it is in agriculture, and not the individual, as in our modern urban economic system.

Since this paper was written I have learned in a letter from Dr. Burgdörfer, Director of the Statistisches Reichsamt in Berlin, that during the first five months of 1934 the birth-rate in Germany has been about 18 per cent. greater than during the same months in 1933, in twenty large cities as a whole about 25 per cent. greater, and in Berlin about 50 per cent. greater. This is a marvellous change. So far as I know an increase of more than a few per cent. in the birth-rate has not occurred either in Europe or North Amerca during the years since vital statistics have been available. It is the first ray of hope in an otherwise dark prospect. You are better qualified than I to interpret the causes of this amazing increase in births and to predict the duration. But it suggests that a reversal of the downward trend of the birth-rate is possible when a people are deeply moved by a serious situation and are willing to adopt an altered philosophy of life.

SECTION IV

INTERNATIONAL POLICIES RELATING TO AGRICULTURE

THE MONETARY SITUATION

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THIS paper presents results of research by myself and F. A. Pearson. I desire to present science—not to speak for, criticize, or recommend political action. I hope to be as objective as a chemist.

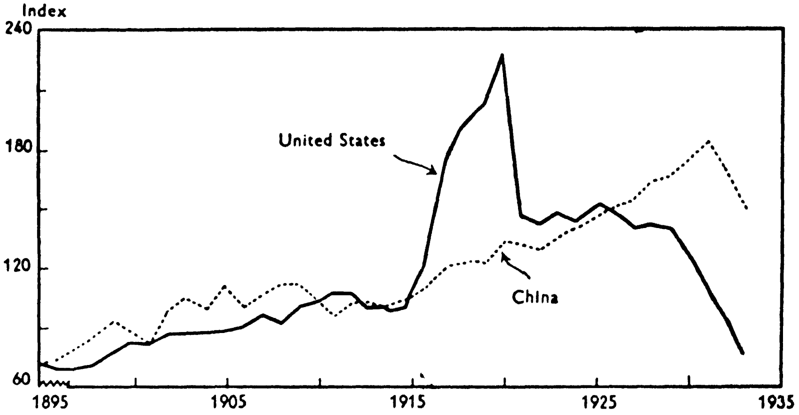

FIGURE 1. WHOLESALE PRICES IN CHINA ON A SILVER BASIS AND IN THE UNITED STATES ON A GOLD BASIS (Pre-War = 100)

China did not have inflation during the World War nor the deflation of 1920 and 1929. Deflation began in 1931 with the return of the demand for silver and silver-hoarding in gold-using countries. During the Napoleonic War period both gold and silver were used by Europe, and the reduced demand for monetary metals caused inflation in both gold-using and silver-using countries. During the World War, only gold-using countries were seriously involved and only gold lost and subsequently acquired value.

The gold-using world has had twenty years of monetary chaos and, I think, will continue to have monetary chaos for a number of years. The silver-using world was not strikingly affected until the last two years. During the years of violent rise in prices in all gold-using countries, China's prices continued the same gradual upward trend which began in 1875, as shown in Fig. 1. The price collapse which occurred in gold-using countries in 1920 had no counterpart in China; her gradual upward trend continued; nor did the price collapse of 1929 occur in China. A collapse began in China in 1931, when silver hoarding began in gold-using countries. The recent price history of the gold-using world has not been a world-wide phenomenon but a gold-wide phenomenon. It cannot be said that the monetary chaos was a world-wide and inevitable consequence of the War. When a study is made of gold-using countries that suspended gold payments, or that raised the price of gold, we again find that the price history has not been world-wide. What, then, have been the causes of the chaotic price relationships?

WHY DID PRICES RISE AND FALL?

The writer believes that the price chaos has been due to fluctuations in the demand for gold which resulted from monetary chaos. In order to eliminate current illusions a comparison with another period of monetary chaos that began nearly 150 years ago is of interest. The French Revolution broke out in 1789. At first it was a local affair, but gradually grew into the Napoleonic War period which involved most of Europe and finally involved the United States in the war of 1812. For a few years it was a local affair, but finally approximated, although it never reached, the recent World War in inclusiveness.

When prices for the five years 1785–9 are called 100, prices rose by 1796 in England to 144 and in the United States to 165, although neither of these countries had made any monetary change and no important discoveries of gold or silver had been made (Fig. 2). England suspended metal payments in 1797, and returned to a metal basis in 1821. The United States also suspended metal payments for a short time, from September 1814 to February 1817. Its currency never fell very far below par. The lowest monthly average was 84 per cent. of par. Prices in gold and silver continued to rise. English prices in gold reached 180 in 1809. American prices reached 199 in 1814. For more than a quarter of a century, beginning with 1795, prices were very irregular, but were at a high level throughout the world. The explanation is, I believe, very simple. A large part of the world discontinued using gold and silver for money and discontinued active bidding for them. The reduced demand caused a sudden decline in the value of both gold and silver, so that prices expressed in these metals rose throughout the world.

The United States returned to metal money in 1817, and prices continued at a high level. In 1818 England decided to return to a gold basis, but took three years for the process. During these three years prices in gold in England fell 30 per cent. and fell 31 per cent. in the United States. The experiences were similar to the recent occurrences. We now know that this price collapse was not due to over-production of commodities; it was not a business cycle; it was not due to a change in the supply of gold and silver; but was due to sudden changes in the demand for these metals for monetary use. There were violent fluctuations in prices after the price collapse, but no real price recovery until gold was found in Australia and California, about sixty years after the outbreak of the French Revolution.

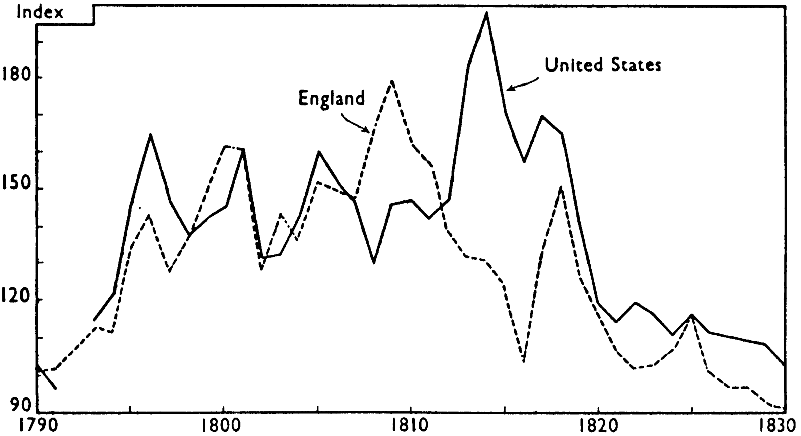

FIGURE 2. PRICES IN ENGLAND AND IN THE UNITED STATES IN GOLD DURING THE NAPOLEONIC WAR PERIOD

1785–9 = 100 Prices in gold

When prices for the five years, 1785 to 1789 are 100, prices in England for 1796 were 144 and in the United States were 165. These rises were due to reduced demand for gold and silver. With the return of demand, following 1818, a price collapse occurred in each country, from which there was no recovery.

The *Statist* index number for England and a comparable index number for the United States are shown in Fig. 3. The phenomenal rise in prices in gold during the World War was not due to vast discoveries of gold, but to the vast reduction in the demand for gold. There was no reason for supposing that the world's gold supply could suddenly support a doubled price level, and certainly not after a period of monetary chaos, which always means inefficiency in the use of gold. With the attempt to restore the gold standard, a price collapse occurred.

Rist, the French economist, described this fantastic situation as follows:

'If one reflects how slowly world prices in gold vary as a rule, the probability of any 50 per cent. jump in those prices between 1915 and 1925 (the date of the return of sterling to par) seems very scant indeed... the idea of maintaining price levels the world over on the war-time scale and transforming them into a gold price level, the while maintaining old currency parities, looks to-day like a fantastic dream.'[1]

Since 1918 I have been calling attention to the abnormal values of gold, and at the last meeting of this conference I made the following statement: 'My guess is that wholesale prices will fall below pre-war—that is, gold will become more valuable than it was before the war.'[2] The forecast has proved correct. Of course, a guess may be correct by accident, but I believe that in this case it is because the diagnosis was correct.

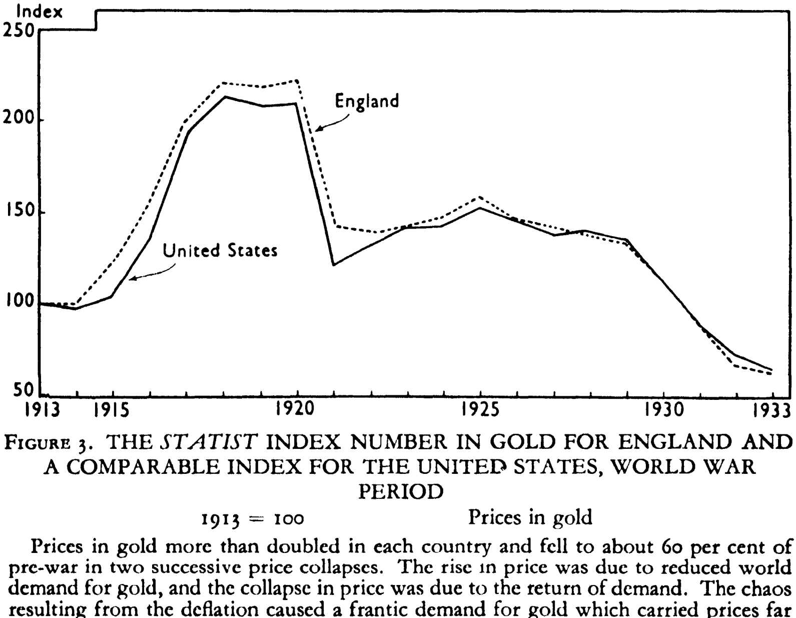

FIGURE 3. THE *STATIST* INDEX NUMBER IN GOLD FOR ENGLAND AND A COMPARABLE INDEX FOR THE UNITED STATES, WORLD WAR PERIOD

1913 = 100 Prices in gold

Prices in gold more than doubled in each country and fell to about 60 per cent of pre-war in two successive price collapses. The rise in price was due to reduced world demand for gold, and the collapse in price was due to the return of demand. The chaos resulting from the deflation caused a frantic demand for gold which carried prices far below pre-war.

There is one interesting difference between the World War period and the Napoleonic War period. In the Napoleonic War period, warring countries were on a bimetallic basis and both gold and silver lost value and acquired more than their pre-war value after the wars were over. During the World War period nearly all of the warring countries were on a gold basis. Neutral countries that were on gold had the rise and subsequent collapse in prices, but neutral countries that were on silver were little affected.

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[1] Rist, C., 'Gold and the End of the Depression', *Foreign Affairs*, vol. xii, no. 2, pp. 246, 247, Jan. 1934.

[2] Warren, G. F., 'The Depression: Causes and Duration', *Proceedings of the Second International Conference of Agricultural Economists*, 1930, p. 110.

During the World War period a considerable part of the world left the gold standard, gold lost value, and prices in neutral gold countries more than doubled. This doubling of prices applied to commodities the consumption of which was interfered with by the war, but it did not occur in China. The first collapse occurred in 1920, but the most serious collapse occurred after the various countries had attempted to restore the gold standard. One after another the various countries began to move towards the re-establishment of the gold standard. It was not done all at once. Sweden returned to the gold basis on April 1, 1924; Germany, in the fall of 1924; England and the Netherlands, on April 28, 1925; Belgium, October 25, 1926; Italy, December 22, 1927; and France, June 25, 1928. The price structure was entirely out of line with the gold supply if all countries were to return to gold, and prices suffered a sudden collapse.

In 1920 prices in gold reached the highest level ever known and, from this level, prices in England and the United States have now collapsed to the lowest level in gold since the establishment of the United States.

When 1913 is 100, an index number for the United States comparable to the *Statist* rose to 242 in April 1920 and fell to 69 in February 1933, or prices rose 142 per cent. and fell 71 per cent. without any change in the monetary system of the country.

THE VALUE OF GOLD

The degree of the price collapse since 1929 is shown in Fig. 4. Prices in gold throughout the world have declined during the recent depression from nearly 50 per cent. above pre-war to 25–40 per cent. below pre-war.

The normal growth in output of basic commodities in the world was interfered with by the war so that world production has been low compared with its normal trend, not high as is assumed by those who attribute the depression to over-production. With the general level of production before the depression, the world's gold supply was sufficient to support pre-war prices if gold were used with pre-war efficiency. But prices in gold are now 25–40 per cent. below pre-war. Individuals have learned that hoarding was good policy. Banks have learned that lending the normal percentage of the value of goods, homes, or farms has been unsafe. Borrowers have learned that normal borrowing is unsafe. It will be many years before gold is likely to be used with pre-war efficiency. It is therefore probable that if the countries that formerly used gold as money continue to use it, or continue to bid for it, gold will retain more than its pre-war value for a number of years at least. Of course phenomenal gold discoveries might change this, but no such discoveries are in sight, and the present rate of production is probably inadequate for the maintenance of pre-war prices even if we had such prices. On the other hand, the terrific fall in prices in gold seems to have been checked. The decline in the last two years has been gradual.

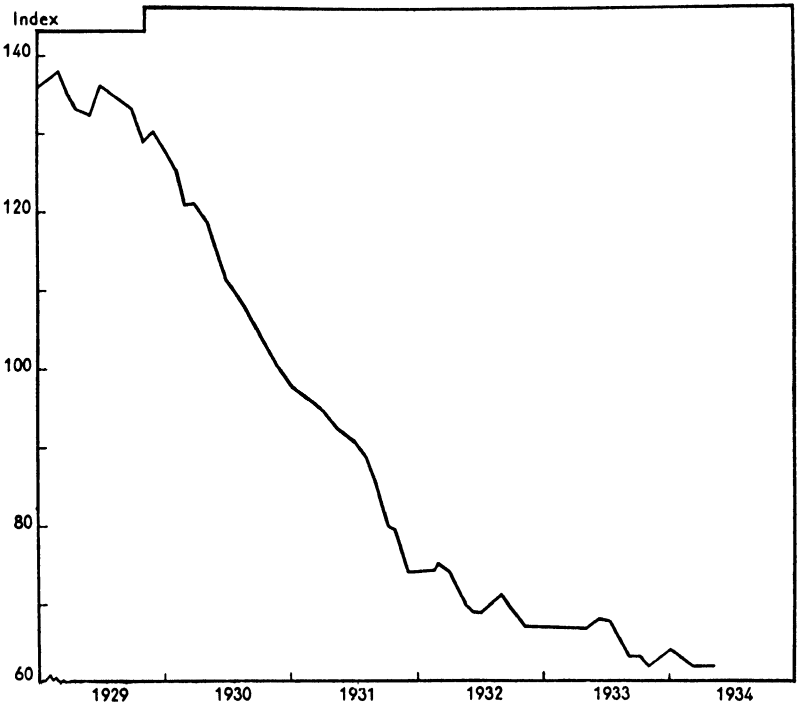

FIGURE 4. PRICES OF BASIC COMMODITIES IN SIX COUNTRIES EXPRESSED IN PRE-WAR GOLD CURRENCIES

Pre-war = 100

Prices declined with great rapidity from 1929 to 1932. Since that time, the decline has been less rapid, but no upturn has occurred. Apparently the rapid increase in the value of gold has been checked. Prices in gold are lower than at any previous time for a century and a half.

Unless some important country definitely demonetizes gold and stops bidding for it, or unless some phenomenal gold discovery is made, it is to be expected that prices in gold will remain distinctly below pre-war for some years, but that they will probably not remain at the present level after the price of gold has been raised enough so that general recovery occurs. Sudden violent fluctuations in the price level expressed in gold will probably continue.

EFFECTS OF RAISING THE PRICE OF GOLD

In 1931 England and most of the other countries of the world left the gold standard when prices were only a little below pre-war, and, by raising the price of gold, either raised prices or stopped the decline. The United States persisted in its efforts to maintain the gold standard until the United States index comparable to the *Statist* had reached 69 in gold, that of 1913 being 100. The attempt to pay debts, most of which had been contracted at prices from 140 to 242, was so utterly impossible that a collapse occurred in the entire credit structure. The attempt to exchange goods when raw materials had collapsed, but costs of distribution remained high, stopped business.

It is sometimes said that England did not get a rise in prices by leaving the gold standard. That is true, but she stopped the collapse. She left the gold standard when prices in gold were 95. The United States waited until the same index reached 69. Disparaging comparisons are sometimes made between American and English banking without taking account of this fact.

Only two countries, Holland and Switzerland, are still continuing the attempt to maintain their pre-war currencies. It remains to be seen whether they can stand the amount of suffering which this entails. It is easier for these countries to persist in such an effort because in countries near large markets the discrepancy between prices of raw materials and finished products is less than the discrepancy far from market. Farmers in England and Holland and those near New York City suffer less from deflation than do farmers in Australia, Canada, or western United States.

There is also a different situation in countries that revalued after the depression of 1920. Countries like the United States which attempted to maintain their pre-war currency throughout the period were in a worse condition than they would have been had they not had the depression of 1920, which had not been overcome before the second depression. In fact the lag in distributing charges compelled the farmers to take less goods for their farm products than they normally would receive, so that cities profited by cheap food. This accentuated the boom in 1929 and made the situation quite different from conditions in France. The only deflation from which France and

Italy has suffered is the deflation since 1929. Countries that avoided the deflation of 1920 by revaluing at a later date suffered least. Countries like England and Denmark that suspended the gold standard had higher prices than the United States, and would have suffered more than the United States had they not left gold sooner.

In the countries that have recently suspended the gold standard, prices of gold have been raised from more than 60 to nearly 200 per cent. (Table 1). The degree of recovery is largely in proportion to the increase in the price of gold. To restore the pre-depression price level at the present time requires that the price of gold should be more than doubled.

TABLE 1. *Index Numbers of the Price of Gold in Various Countries*

Post-war pars = 100

	France	*Switzer-land*	*Nether-lands*	*Italy*	*Belgium*	*Poland*
Dec. 1929	99	99	100	100	99	100
Dec. 1930	100	100	100	100	100	100
July 1931	100	99	100	101	100	100
Oct. 1931	100	98	99	102	100	100
Dec. 1931	100	99	100	103	100	100
July 1932	100	99	100	103	100	100
Oct. 1932	100	100	100	103	100	100
Feb. 1933	100	100	100	103	100	100
July 1933	100	100	100	100	100	100
Oct. 1933	100	100	100	100	100	100
Jan. 16, 1934	101	101	101	102	101	100
May. 15, 1934	100	100	100	104	100	99
June 1, 1934	100	100	100	103	100	100
June 7, 1934	100	100	100	102	100	99

	Czecho-slovakia	*Austria*	*England*	*South Africa*	*India*	*Egypt*	*Canada*	*United States*
Dec. 1929	100	100	100	100	100	99	100	100
Dec. 1930	100	100	100	100	102	99	100	100
July 1931	100	100	100	100	101	99	100	100
Oct. 1931	100	101	125	100	127	124	112	100
Dec. 1931	100	101	144	100	144	143	121	100
July 1932	100	101	137	102	137	136	115	100
Oct. 1932	100	101	143	102	142	142	110	100
Feb. 1933	100	101	142	144	141	141	120	100
July 1933	99	125	146	148	146	145	148	140
Oct. 1933	100	125	155	157	155	160	152	149
Jan. 16, 1934	100	125	155	154	154	..	162	162
May 15, 1934	119	124	160	160	160	..	168	168
June 1, 1934	120	125	161	161	161	..	168	168
June 7, 1934	119	124	161	161	161	..	167	168

TABLE 1 (*continued*)

	Sweden	*Norway*	*Finland*	*Denmark*	*Australia*	*New Zealand*	*Argentina*	*Japan*
Dec. 1929 . .	100	100	100	100	102	100	104	100
Dec. 1930 . .	100	100	100	100	109	100	128	100
July 1931 . .	100	100	100	100	131	..	138	100
Oct. 1931 . .	116	121	109	122	163	138	186	101
Dec. 1931 . .	143	145	149	144	181	..	165	115
July 1932 . .	147	152	164	140	172	150	165	182
Oct. 1932 . .	153	156	170	152	179	157	165	216
Feb. 1933 . .	147	153	169	176	179	178	165	240
July 1933 . .	156	160	171	180	184	183	167	242
Oct. 1933 . .	165	170	181	191	195	194	166	267
Jan. 16, 1934 .	165	169	180	191	194	193	198	266
May 15, 1934 .	171	176	187	198	200	200	209	277
June 1, 1934 .	172	177	188	199	202	201	210	279
June 7, 1934 .	173	177	188	199	202	201	210	278

The price of gold in Germany is not included in this table because German marks are sold at a discount for various purposes. In order to determine the average price of gold for Germany one would need to know the average price at which all sales of marks have been made. By selling marks at a discount the German level of commodity prices has been prevented from declining as much as prices have declined in gold.

England left the gold standard at a time when prices in gold were rapidly falling and stopped the collapse (Fig. 5). Prices continued to fall in those countries which remained on the gold standard. The United States left the gold standard at a time when prices in gold were falling slowly and therefore quickly raised prices to the English level.

The *Journal of Commerce* index of prices of thirty basic commodities in the United States followed the price of gold fairly closely (Fig. 6).

Index numbers of prices of basic commodities in the various countries are at all times about in proportion to their respective prices of gold. For example, from February 1933 to February 1934 prices of 20 basic commodities in Italy fell 2 per cent., but rose 70 per cent. in the United States. Italy had made no change in the price of gold. The United States raised the price 69 per cent. Prices are available for 21 commodities in France. These rose an average of 6 per cent., but rose 64 per cent. in the United States (Tables 2 and 3).

England raised the price of gold 13 per cent., and prices of 22 basic commodities rose on an average by 14 per cent. The same commodities in the United States rose 73 per cent. For eleven countries the advance in prices of these basic commodities was 1 per cent. in gold.

The advance in the United States was 2 per cent. in gold plus an additional 69 per cent. because of an increase in the price of gold.

The same relationship was shown for general index numbers for various countries. Even with the extremely wide range of commodities included in the different index numbers and the differences in weighting, index numbers expressed in gold are reasonably comparable throughout the world. This is due to two well-established laws of prices.

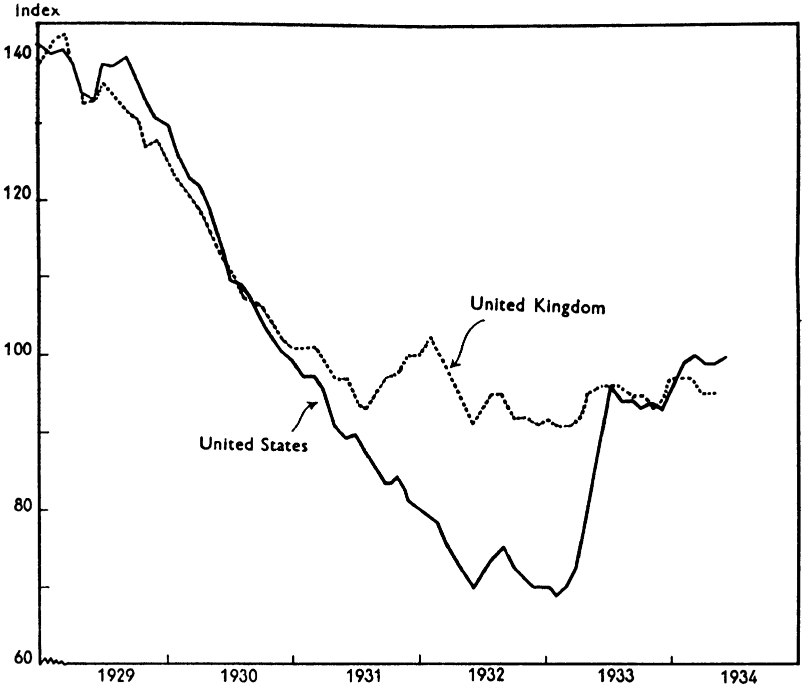

FIGURE 5. THE *STATIST* INDEX NUMBER FOR ENGLAND AND A COMPARABLE INDEX NUMBER FOR THE UNITED STATES

1913 = 100 Prices in Currency

By suspending the gold standard and raising the price of gold in September 1931, at a time when gold was rapidly rising in value, England stopped the decline in prices. By raising the price of gold in 1933, prices in the United States were brought to the English level.

1. The index numbers of prices of basic commodities when expressed in terms of any commodity that moves cheaply and freely are normally alike in the various countries. This is sometimes called the law of purchasing-power parity.

2. Index numbers for average prices of all commodities lag behind index numbers for basic commodities, but there is no difference in long-time trend, and, given time for adjustment, they are brought into line.

By quotas, tariffs, bounties, and the like a country may favour one or another commodity, but even with the maximum of restriction there is enough international business to keep the general level of commodity prices expressed in gold very closely comparable if the index numbers are at all comparable as to composition and weighting (Table 4).

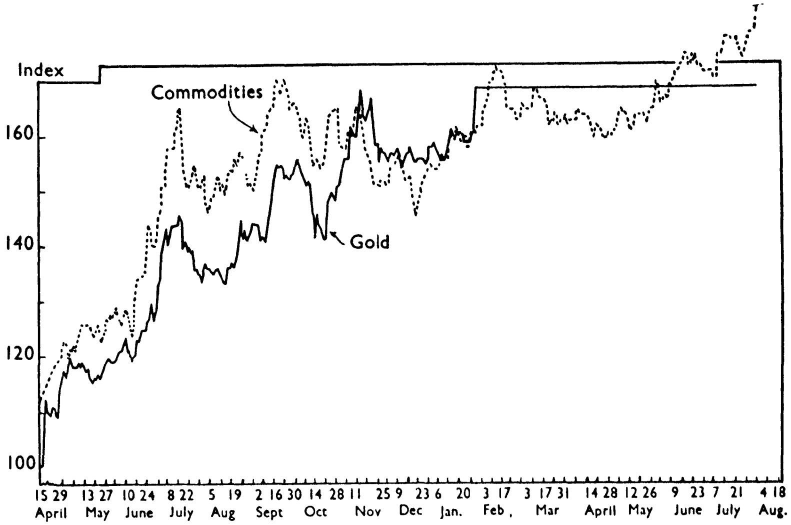

FIGURE 6. DAILY PRICES OF GOLD AND THE JOURNAL OF COMMERCE INDEX OF PRICES OF 30 COMMODITIES IN THE UNITED STATES, 1933-4

February 1933 = 100

Prices of basic commodities in the United States moved approximately in proportion to the price of gold. The commodities included in the index are wheat, corn, oats, rye, barley, flour, beef, pork, lard, eggs, butter, cheese, sugar, coffee, cocoa, cotton, print-cloth, wool, silk, burlap, copper, zinc, lead, tin, silver, hides, rubber, linseed oil, turpentine, crude petroleum. After April 17, 1934, hogs were substituted for petroleum.

The change in the price of gold and changes in prices of various farm products in the United States are shown in Table 5. By May 15, 1934, one half of the products had advanced more than the price of gold and one half less. Of course, prices were influenced not only by the price of gold, but by their supply. In the United States in 1934 most of the crops were rather short. Sheep and horse cycles

TABLE 2. *Percentage Changes in Prices of Individual Basic Commodities in Various Countries from February 1933 to February 1934*

	France	*Italy*	*Belgium*	*Holland*	*Switzer-land*	*England*	*India*	*Canada*	*Czecho-slovakia*	*Japan*	*Austria*	*Germany*	*United States*
Copper . . .	− 1	+ 1	. .	. .	− 2	+ 10	. .	+ 32	+ 6	+ 5	+ 4	0	+ 61
Tin . . .	+39	+33	. .	. .	+38	+ 50	+48	+ 77	+41	. .	+51	+ 35	+120
Lead . . .	+ 2	− 4	. .	. .	− 4	+ 9	+ 7	+ 13	+ 2	. .	+ 2	+ 5	+ 33
Zinc . . .	+ 2	0	− 7	. .	− 7	+ 7	. .	+ 17	− 2	. .	+ 2	0	+ 60
Pig iron . .	− 3	0	+ 7	+20	+ 3	+ 5	0	0	−15	+26	0	0	+ 17
Wheat . .	+20	−20	−25	. .	+ 9	− 16	−10	+ 43	− 8	+28	+ 7	0	+ 79
Rye . . .	. .	−24	. .	+ 2	. .	. .	. .	. .	+19	+51	− 8	+ 4	+ 70
Barley . .	. .	−21	− 4	+10	+20	+ 36	−29	. .	+11	+45	−16	. .	+139
Corn . . .	+11	− 7	− 3	+34	+20	− 5	. .	. .	+ 7	. .	+39	− 12	+102
Oats . . .	−39	. .	. .	+30	+ 3	+ 7	. .	+ 45	−10	. .	+13	+ 17	+120
Potatoes . .	+39	+ 8	+33	. .	−10	. .	− 7	+ 43	+33	. .	+11	+ 11	+100
Butter . .	. .	+ 6	. .	− 9	− 3	− 18	. .	+ 27	0	. .	. .	+ 44	+ 36
Pork . . .	−33	− 1	. .	+23	+24	. .	. .	. .	−31	. .	−10	+ 20	+ 55
Beef . . .	−17	− 1	. .	+24	. .	− 9	. .	. .	−17	0	− 4	− 3	+ 1
Mutton . .	− 2	. .	. .	+20	. .	− 4	. .	. .	− 9	. .	. .	+ 17	0
Cotton . .	+21	+12	. .	+16	+10	+ 33	+10	+ 72	+13	+30	+33	+ 17	+102
Wool . . .	+45	+24	+57	. .	+52	+ 59	+27	+150	+22	. .	+72	+ 59	+113
Hides . . .	+11	+11	. .	+26	+15	+ 16	. .	+ 86	+62	. .	+39	+ 14	+115
Leather . .	− 5	−16	. .	+ 4	+ 1	+ 21	. .	. .	+21	+11	+12	0	+138
Rubber . .	. .	. .	. .	+89	+38	+135	. .	+ 33	. .	. .	+89	+109	+246
Nitrate of Soda .	− 5	− 2	− 7	. .	0	− 13	− 1	. .	. .	. .	. .	. .	+ 4
Coffee . .	−11	−37	. .	−35	−14	− 11	− 8	− 18	− 9	. .	− 1	− 30	+ 26
Petroleum . .	+37	. .	. .	− 9	− 3	− 8	0	+ 11	0	. .	+ 9	+ 10	+ 71
Sugar . .	+ 5	0	. .	+22	− 9	0	−18	+ 56	0	− 2	0	0	+ 18
Coal . . .	0	. .	−21	. .	− 8	− 8	+ 2	0	− 3	+13	0	0	+ 12
Average . .	+ 5·5	− 1·9	+ 3·3	+16·7	+ 7·9	+ 13·5	+ 1·6	+ 40·4	+ 5·8	+20·7	+15·6	+ 13·8	. .
Gold . . .	0	0	0	0	0	+13	+14	+ 40	+11	+16	+25	. .	+ 69

were beginning to turn up, but the poultry, cattle, and hog cycles happened to be in the period of high supply and low purchasing power, so that they rose less than the average of all commodities.

TABLE 3. *Changes in Average Prices of Identical Basic Commodities in Various Countries in Currency and in Gold from February 1933 to February 1934*

Country	*Number of identical commodities*	*Percentage change in currency prices*	*Percentage change in the price of gold*	*Percentage change in prices in terms of gold*
France . . .	21	+ 5·5	0	+ 5·5
United States . .		+64·2	+69	− 2·8
Italy	20	− 1·9	0	− 1·9
United States . .		+69·6	+69	+ 0·4
Belgium . . .	9	+ 3·3	0	+ 3·3
United States . .		+69·6	+69	+ 0·4
Holland . . .	16	+16·7	0	+16·7
United States . .		+78·5	+69	+ 5·6
Switzerland . .	22	+ 7·9	0	+ 7·9
United States . .		+80·4	+69	+ 6·7
England . . .	22	+13·5	+13	+ 0·4
United States . .		+73·4	+69	+ 2·6
India . . .	13	+ 1·6	+14	−10·9
United States . .		+64·2	+69	− 2·8
Canada . . .	17	+40·4	+40	+ 0·3
United States . .		+78·3	+69	+ 5·5
Czechoslovakia . .	23	+ 5·8	+11	− 4·7
United States . .		+69·1	+69	+ 0·06
Japan . . .	10	+20·7	+16	+ 4·1
United States . .		+63·9	+69	− 3·0
Austria . . .	22	+15·6	+25	− 7·5
United States . .		+81·8	+69	+ 7·6
Germany . . .	23	+13·8	..	..
United States . .		+73·8	+69	+ 2·8
Average for 11 countries (omitting Germany) .		..	..	+ 1·2
Similar average for United States . .		72	69	+ 1·8

The demand for individual commodities of course affects their relative positions. The stimulus to business which came as a result of leaving the gold standard greatly increased the demand for hides and textiles, and the prices of these rose more than the price of gold.

Some persons have thought that the advances in prices were only for import or export commodities. Others have thought that only speculative commodities respond to the price of gold. The fact is that basic commodities respond quickly whether they be import or export, speculative or non-speculative. Lard is a speculative, export

TABLE 4. *Index Numbers of Wholesale Prices in Various Countries*

Pre-war = 100

	Base	*Month*	*Prices in currency*	*Gold divisor*	*Prices in pre-war gold*
Countries on a pre-war gold standard:					
Netherlands:					
Central Bureau of Statistics .	1913	March	79	1·00	79
Countries on gold standard that have revalued:					
Belgium:					
Ministry of Industry and Labour	Apr. 1914	,,	478	6·94	69
France:					
45 items	1913	,,	371	4·92	75
Raw materials	1913	,,	337	4·92	68
General Statistical Bureau . .	1913	,,	394	4·92	80
Italy:					
Riccardo Bachi . . .	1913	,,	275	3·67	75
Ottolenghi, materials . .	1913	,,	260	3·67	71
Countries off the gold standard:					
United States:					
Bureau of Labour, all commodities	1910–14	,,	108	1·69	64
Bureau of Labour, raw materials	1913	,,	96	1·69	57
30-basic commodities . .	1910–14	,,	99	1·69	59
Bradstreet's	1913	,,	101	1·69	60
Annalist	1913	,,	108	1·69	64
'Statist'	1913	,,	100	1·69	59
United Kingdom:					
Sauerbeck-Statist . . .	1913	,,	97	1·61	60
Board of Trade . . .	1913	,,	104	1·61	65
Economist	1913	,,	90	1·61	56
The Times	1913	,,	99	1·61	61
Canada:					
Total index	1913	,,	112	1·69	66
Raw and partly manufactured .	1913	,,	97	1·69	57
Sweden:					
General index	1913	,,	112	1·72	65
Raw materials	1913	,,	99	1·72	58
Norway:					
Central Bureau of Statistics .	1913	,,	122	1·77	69
Denmark:					
Statistical Department . .	1913	,,	129	1·98	65
New Zealand:					
Census and Statistics Office: .	1909–13	Feb.	134	2·02	66
Australia:					
Bureau of Census and Statistics .	1910–14	Dec.	144	1·87	77

Index numbers of prices in currency varied from 79 to 478 when pre-war is 100. When these index numbers are divided by the increase in the price of gold above the pre-war price, the range is from 56 to 80. In spite of the differences in commodities included and differences in methods of weighting, the index numbers differ by only a limited amount in gold.

commodity, but the high supply of hogs tended to obscure the effect of raising the price of gold. Potatoes and sweet potatoes are domestic products that are not traded in on the speculative markets. They advanced more than the price of gold because of the supply.

TABLE 5. *Changes in Prices paid to Farmers in the United States from February 15, 1933, to May 15, 1934*

	Feb. 15, 1933	*May 15, 1934*	*Per cent. change*
	$	$	
Wool, per lb.	0·088	0·234	166
Corn, per bushel	0·194	0·486	151
Oats, per bushel	0·133	0·327	146
Rye, per bushel	0·219	0·519	137
Barley, per bushel	0·179	0·422	136
Wheat, per bushel	0·323	0·695	115
Cotton, per lb.	0·055	0·110	100
Potatoes, per bushel	0·370	0·737	99
Sweet potatoes, per bushel	0·435	0·828	90
Flax-seed, per bushel	0·871	1·637	88
Beans, per bushel	0·90	1·57	74
Apples, per bushel	0·66	1·14	73
GOLD, per oz.	20·67	35·00	69
Lambs, per 100 lb.	4·19	6·95	66
Sheep, per 100 lb.	2·16	3·54	64
Hay, per ton	5·91	8·94	51
Buckwheat, per bushel	0·391	0·555	42
Horses, per head	61·53	82·88	35
Beef cattle, per 100 lb.	3·31	4·13	25
Eggs, per doz.	0·110	0·133	21
Chickens, per lb.	0·094	0·112	19
Butter, per lb.	0·184	0·216	17
Hogs, per 100 lb.	2·94	3·17	8
Milk cows, per head	31·29	33·32	6
Veal calves, per 100 lb.	4·75	4·83	2

From February 1933 to May 1934 prices paid to farmers for 12 farm products advanced more than the price of gold (69 per cent.) and 12 advanced less than the price of gold. The unweighted average of 24 products increased 72 per cent. These prices were before the drought had much influence.

Combining supply price relationships with the world value of gold and the price of gold goes far towards explaining prices. For example, the December 1933 estimate of the United States supply of wheat was 17 per cent. below the previous year. From the supply price relationship this would be expected to raise the price 29 per cent. Average prices of commodities in gold in Holland, France, and Italy had declined 3 per cent. Therefore prices would be expected to decline 3 per cent. The United States price for gold was increased 57 per cent. Multiplying these together (1·29 × 0·97 × 1·57 = 1·96) gives an expected price of 196 when prices for December 1932 were 100. The actual farm price on December 1 was 212. Similar calculations for corn give an expected price of 193, an actual price of 205. For cabbage, a domestic, non-speculative product, expected price, 410; actual price, 411. For cotton, expected price, 157; actual price, 165. These calculations do not include a factor for demand as no data are available, but the combination of supply of the crop and the value and price of gold give an approximate explanation of the price changes (Table 6).

TABLE 6. *Changes in Farm Prices, December 1, 1932, to December 1, 1933**

Crop	*Supply when 1932 = 100*	*Expected change in farm price due to change in size of United States supply*	*Expected change in farm price due to change in value of gold*	*Expected change in farm price due to change in price of gold*	*Expected farm price when Dec. 1, 1932 = 100*	*Actual price Dec. 1, 1933, when Dec. 1, 1932 = 100*
Wheat	83	1·29	0·97	1·57	196	212
Corn	81	1·27	0·97	1·57	193	205
Potatoes	89	1·17	0·97	1·57	178	199
Hay	94	1·05	0·97	1·57	160	124
Cabbage	61	2·69	0·97	1·57	410	411
Oats	63	1·55	0·97	1·57	236	227
Cotton	94	1·03	0·97	1·57	157	165

* Warren, G. F., and Pearson, F. A., 'Five Factors in Price', *Farm Economics*, no. 84, Feb. 1934, p. 2025.

PRICE DISPARITY WITH INFLATION, DEFLATION, AND REFLATION

When prices suddenly rise, regardless of the cause, prices of basic commodities outrun prices of manufactured goods. Wholesale prices outrun retail prices. For example, in 1917 prices of 30 basic commodities in the United States had risen to an index of 201, but all commodities had risen only 172. Prices paid to farmers for food products had risen to 181. The same food at retail was 156, and the cost of living was 131.

Adjustment upwards takes place much more quickly than adjustment downwards. By 1920 prices paid to farmers for food products were 207. Retail prices had caught up with farm prices and were also 207. The cost of living was 212.

Whenever prices fall, regardless of the cause, basic commodities fall more rapidly than manufactured goods and wholesale prices fall more rapidly than retail prices, but in this case the lag in adjustment is very great. It was possible to raise wages and other costs of distribution fast enough so that by 1920 farm prices were in adjustment with retail prices. When prices are cut in half, it is not possible to lower wages and other costs of distribution so as to bring farm prices and retail prices into adjustment quickly. It would probably require a generation to do so. In the nine years of experience following 1920 the United States had not succeeded in reducing the costs of distribution very much.

There are only two ways to bring the price level into balance. One is a prolonged period of distress, probably at least a generation long. The other is by reflation.

A clear distinction should be made between inflation and reflation. Inflation throws a balanced price structure out of adjustment. Reflation brings an unbalanced price structure into adjustment. Many persons have mistakenly assumed that there were two problems—one to raise the price level and the other to bring farm prices and prices of other commodities into line with wages, prices of manufactured goods, retail prices, and the cost of living. There is only one problem. A certain amount of reflation will restore equilibrium and a further rise in prices would cause the inflationary type of disequilibrium, with farmers' prices too high.

When a half-deflated price structure is raised by raising the price of gold it prevents those things that had not fallen from the necessity of decline and raises the prices of those things that had fallen. When gold has doubled in value and partial deflation has occurred, a doubling of the price of gold does not mean that everything will double in price. Those things that have not declined are relieved of the necessity of declining. Those things that have declined 50 per cent. would be expected to rise 100 per cent. Of course, if in the meantime the value of gold either rose or fell it would neutralize or add to the effect of the change in its price.

The experience of the United States in raising the price of gold indicates these well-established laws. For example, prices paid to farmers for food products in June 1934 had risen 61 per cent., but this same food at retail had risen only 25 per cent. A much greater rise in the farm price would be necessary in order to restore equilibrium. The *Journal of Commerce* index of basic commodities had risen 72 per cent., but the Bureau of Labour index, which includes 784 commodities, largely manufactured goods, had risen only 25 per cent. Many manufactured goods had not declined much and, of course, would not be expected to rise (Tables 7 and 8).

TABLE 7. *Per Cent. Advance in Prices from February 1933 up to Month indicated*

	Gold per cent. above par United States	*Wholesale prices of basic commodities Journal of Commerce*	*United States Bureau of Labour index of 784 commodities*	*United States prices paid to farmers for food**	*United States retail prices of same food as preceding column*	*United States cost of living†*	*Wholesale prices in countries on the gold standard*		
							Italy	*France*	*Netherlands*
Mar. 1933	0·2	8	1	4	2		−2	−3	−3
April .	5	12	1	14	1		−3	−4	−4
May .	18	24	6	37	6		−3	−5	−3
June .	23	32	9	41	8	−3	−2	0	−1
July .	40	54	16	65	14		−3	−1	−1
Aug. .	37	52	17	57	16		−3	−2	−1
Sept. .	48	64	18	49	16		−4	−2	1
Oct. .	49	61	20	45	16		−4	−2	1
Nov. .	60	58	20	47	14		−5	0	3
Dec. .	56	53	18	33	11	2	−4	1	4
Jan. 1934	59	58	21	35	14		−4	0	7
Feb. .	67	67	24	47	22		−4	−1	8
Mar. .	68	65	24	51	25		−4	−2	7
April .	69	62	23	49	25		−5	−4	7
May .	68	64	24	53	26			−6	4
June .	68	72	25	61	25	3			
July .	68	75							

* Prices are for the fifteenth of the month.
† Per cent. advance since December 1932.

TABLE 8. *Index Numbers of Prices from Various Sources*

(1910–14 = 100)

	Warren and Pearson index of 30 basic commodities	*United States Bureau of Labour index of 784 commodities*	*United States prices paid to farmers for food*	*United States retail prices of same food as preceding column*	*United States cost of living*	*United States cost of distributing food*
1917 . .	201	172	181	156	131	129
1920 . .	231	226	207	207	212	202
1926 . .	146	146	154	174	176	192
Feb. 1933 .	66	87	51	97	(132 Dec. 1932)	143
June 1934 .	100	109	82	121	136	157

The cost of living had not declined much and consequently did not rise much. It was relieved of the necessity of falling, and was high without rising.

A comparison of nearly any basic commodity with the manufactured goods made from it will show this principle. For example, in the whole period of the terrific depression steel rails declined only 7 per cent. Scrap steel declined 65 per cent. In May 1934 scrap steel had risen 109 per cent. and steel rails had declined. The disparity between these two was eliminated (Fig. 7).

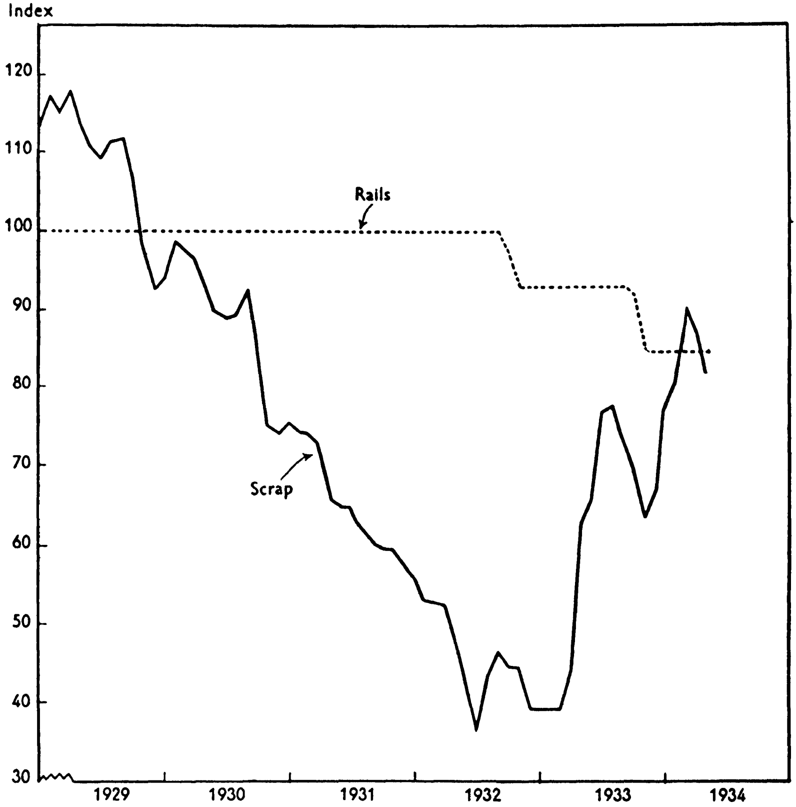

FIGURE 7. WHOLESALE PRICES OF SCRAP STEEL (CHICAGO) AND STEEL RAILS (MILL) (UNITED STATES BUREAU OF LABOUR) (1926 = 100)

In February 1933, scrap steel was selling for approximately one-third the September 1929 price. This is a 65 per cent. decline in the price of scrap steel. During the same period, steel rails declined 7 per cent. With the advancing premium for gold, scrap steel rose 109 per cent. in May, or more than the advance in the price of gold, which was 69 per cent. Steel rails fell somewhat.

Prices of hides compared to boots and shoes show that only a portion of the disparity has thus far been eliminated. This latter relationship is the general situation in the United States at the present time.

THE PRICE OUTLOOK

At the present time the price of gold must be more than doubled in order to restore the pre-depression price level in any country. Those countries that have doubled the price of gold have progressed much farther towards recovery than those countries which have raised it by a lesser amount. From present appearances it will be extremely difficult, if not impossible, for any country to maintain its pre-depression currency. It is further practically certain that any country which maintains its currency as any fixed weight of gold will have extremely violent price fluctuations for some years to come and will, of course, always be subject to the long periods of rise or fall in prices which have occurred at all times when a single commodity is used as a measure of value. Any commodity like gold, the discovery of which is largely fortuitous, will always have long periods of rising or falling value as mines run out and new ones are discovered, and will, of course, be subject to extremely violent changes in value when monetary demand suddenly changes.

With the progress of civilization, the problem of stability of the purchasing power of money becomes of increasing importance. It is far more important to-day than it was twenty years ago. With the growing proportion of inflexible prices, an increasing burden is thrown on the flexible prices when gold rises in value. An amount of instability that could be tolerated in a primitive society in which people were largely self-sufficient and in which the unemployed could move to new lands or new countries, becomes a menace to the very existence of a modern type of civilization. To leave such a delicate mechanism as our modern society subject to accidental discoveries of gold, or to the accidents in the variations in the demand for gold, is to leave it subject to a menace that is not a necessary accompaniment of a form of civilization based on individual enterprise. The greatest menace to the maintenance of individual enterprise is an unstable medium of exchange. If a more reliable medium of exchange is not provided, men are likely to attempt some other method of distribution.

The democratic form of government and a civilization based on private enterprise have been severely tested by the monetary chaos since the War, and in some countries have broken down. For the continuance of our present social order we need a thoroughgoing revision of the rules of the game and a better observance of the rules to provide for greater security and justice and to keep the door of opportunity open for young men and young women; but, if this form of government and social organization is to have a fair chance to show its merits, we must avoid any repetition of such deflation as we have suffered during the past few years. Some provision for better monetary control seems essential.

I believe that there is enough knowledge about prices so that an improved measure of value is possible, but, even if the gold standard is to be re-established, a definite commitment to any final price for gold before its value has reached some approximation to stability is dangerous.

THE CURRENCY PROBLEM OF OUR TIME

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IN undertaking to discuss the present currency problem on its general basis in a short lecture, I am fully aware of the difficulties of my task—difficulties which are not decreased by the fact that this Congress calls for a discussion of the problem in specific relation to agriculture. While it is held that agriculture has a higher claim to a favourable public policy than any other branch of the economic system, yet the fact remains that the currency is an institution for the entire economy and its neutrality should be carefully guarded in the interest of agriculture itself. One might say, however, that the international character of this Conference affords some limitation to my subject, excluding, as it does, the discussion of the peculiarities of the different countries and calling for a more fundamental treatment of the general problems involved, which, I hope, will not appear unpractical or 'academic'.

I may indicate here the road I propose to travel: I shall discuss first the general aim of present-day currency policy and, second, those proposals, discussed especially in agricultural circles, which advocate the manipulation of the currency for overcoming the crisis. They are characterized on the one hand by the slogan 'controlled inflation' and on the other hand by the term 'devaluation'. In all this I cannot do more than present a short sketch which tries to carry a certain amount of conviction, less through details than through the general line of the argument.

I

The starting-point of our discussion is the historical phenomenon of the enviable tranquillity, compared with to-day, in the monetary field which mankind enjoyed from the beginning of the century until the War. Wishes and complaints and possibilities of improvement in every country were not totally lacking. Yet on the whole we had achieved a certain equilibrium which is emphasized by the fact that the main endeavour was directed towards introducing the gold standard in the last 'outsider' country, namely, China.

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[1] The author attempts in the following paper to make use of the entire international literature on these problems, which it is impossible to particularize, and also to take into consideration practical suggestions for reform, which have always had his particular interest. (Cf. e.g. Schumacher, 'Die deutsche Geldverfassung und ihre Reform', in *Schmollers Jahrbuch fur Gesetzgebung, Verwaltung und Volkswirtschaft*, vol. 32 (1908), pp. 1257–1388; also his *Weltwirtschaftliche Studien*, Leipzig, 1911, pp. 46–169.)

The fact of the extraordinarily satisfactory functioning of the currency mechanism has frequently led to the conclusion—for instance in the majority report of the Gold Delegation of the League of Nations—that a return should be made to pre-War measures and institutions, i.e. to the pre-War system of the gold standard. I don't think the situation is as simple as that. A penetrating analysis is needed, which cannot wholly avoid the much discussed problem of the place of gold as currency 'basis'. However contentious the problem may be, there are a few points of comparative certainty.

It is seldom denied that gold carries special advantages for international traffic. Not only is its transportability greater than that of other goods, but for other reasons as well there has been, for centuries, a ready demand for gold in the entire world. Even to-day, though the gold standard has broken down all round, at a time when large unsaleable stocks of almost all goods have accumulated, gold retains a 'liquidity' like no other commodity in the world. For this reason gold has become a medium of settlement, one might say, for the whole world, and it is one of the most astonishing facts of to-day that England has had a greater foreign trade in gold since the 21st of September 1931 than ever before. Inasmuch as gold is used internationally for settling balances, variations in its value lose their significance, since they tend to affect all different economics equally.

The advantages that gold possesses for international traffic are to-day frequently considered decisive. Yet England had a gold currency for almost three-quarters of a century all alone—so that we have reason to expect other advantages as well. Gold is distinguished among the other commodities by its 'longevity'. No other commodity has been so carefully husbanded for ages, and of no other commodity has there been accumulated a stock, in comparison with which the fluctuations of the annual output are so trifling and of such negligible consequence to its value. It is due to this 'longevity' of gold, which subjects the supply to fewer fluctuations than that of other goods, that its cost of production has such little influence upon its price. So it is not only its international 'liquidity', but also its stability of value over long periods, which gives gold special advantages. These cannot be denied as facts. It is about their significance that there exist differences of opinion, which, however, cannot be discussed here.

To these qualitative advantages of gold we can add a quantitative one, and it is, as usual, the conjunction of the qualitative and the quantitative element that makes up the specific character of our problem. If a commodity is to be used as currency basis, it should not be 'increasable at will', like wheat, or cotton, or even iron. Not only must its production be subject to effective limitation, but there must at the same time exist a certain minimum quantity, which is lacking, for instance, in the case of platinum. These difficult requirements, to avoid abundance as well as scarcity, are fulfilled by gold to such a degree that man is normally able to adjust his demand for gold to its stock. The question of the minimum gold stock may thus be considered the central problem for the organization of the gold standard. Here lies the justification for the saying that gold policy is an art—an art, however, which can be successfully employed only if supported by a thorough knowledge of theory.

So this is our first result: up to now proof has not been advanced that a substitute can be found for those three main advantages mentioned, which have in combination helped gold to gain its special place. If it could be found, there would be no reason to stick to gold as currency basis; as long as a substitute does not exist—and this can be proven—experience and reason make it advisable to maintain gold, even though it is not ideal and does not fulfil all wishes.

II

So far we have said nothing about the organization of the gold standard. The singular success of the gold standard during the hundred years before the War was due decidedly to the fact that it had not been arbitrarily constructed, but had grown organically. Its first form, arrived at after a long time of trial and waiting, was the result of the peculiar conditions of England. It grew in such a way that it is hard to tell how far conditions have simply brought it about and how far it has been the result of the conscious actions of men. Also in other countries there has been a constant adjustment to existing conditions. Those economic conditions out of which the organization of the gold standard originally developed have to-day disappeared in almost all parts of the world. Never before has there been such a thoroughgoing change within a short period of time as was caused by the Great War. The organization of the currency system has to take these changes into account. The more this is done, the more successful the gold standard will be in meeting the tasks of the future, the difficulty of which has not diminished. Again it will be a matter of finding out the latent 'ratio' of existing conditions by practical experiment, without historical or dogmatic prejudice.

The most fundamental change, which the pressure of war has brought about everywhere, will have to be accepted as a definite fact: gold has so generally disappeared from circulation that all attempts to return to previous conditions must be given up. What formerly had been regarded merely as a substitute or as a temporary arrangement, the GOLD EXCHANGE STANDARD (*Goldkernwährung*), has to-day come to be normal—a fact of greater consequence than is commonly supposed. While previously bank-notes used to be convertible into gold for internal purposes as well as for foreign trade, to-day one of the two links connecting gold with money has disappeared. Previously 'internal' and 'external' value of the currency were closely and artificially connected. Now this linking device has been abandoned. Thus, no doubt, greater divergences between the development of the internal and the external value of money have become possible. In cases, however, where foreign trade shows a certain substantial development, we may assume that the one-sided convertibility of banknotes, namely for purposes of foreign trade only, is sufficient for maintaining an effective connexion between the commodity of gold and money in the internal economy as well. The fact remains, however, that what used to be a certainty has to-day become a problem and thus, frequently, a task of banking policy.

Yet this task of banking policy goes much farther. It may remain undiscussed whether the much-disputed and much-misunderstood 'automatism' of the gold standard has ever fully functioned. It is certain that there was no large country in Europe before the War whose gold standard was not regulated by banking policy. In Germany, for example, we have had since last century a discount policy as well as a foreign exchange and open-market policy. The much-discussed 'management' of the gold standard is nothing new, though the problem of counteracting the shortcomings of 'automatism' has since the War become at once more difficult and more urgent. Monetary policy has become something more than an auxiliary to the gold standard; it has assumed fundamental importance. It cannot be shown here what it means in individual cases, as it is different in every country.

The other change which monetary policy has to recognize has already been mentioned. I refer to the limitation of the gold stock. I don't believe that there has been a notable change for the worse in gold production; the ever-increasing process of industrialization in gold mining has made production possible in places where it had formerly been unprofitable; it has brought a continuity of output formerly unattainable; and it has given the cost-factor in production a greater influence upon the volume of output than used to exist. While, therefore, there is no just reason for apprehension in this respect, it will nevertheless be necessary in future to pay more attention than hitherto to this basic defect of the gold standard. Now we have to take into consideration possibilities still remote. Besides the old questions of credit currency without the use of cash, the problem of the quantitative and qualitative cover of banknotes has gained increased importance. To use silver in addition to gold in this connexion seems to me not only devoid of risk but useful.[2]

While, therefore, thoroughgoing changes in the organization of the gold standard are necessary, this does not necessitate a change in the goal of monetary policy. Here the question arises, whether money fulfils its functions best by remaining 'neutral' towards relative prices—as used to be the case before the War—that is to say, if 'changes from the side of money' are eliminated, while 'changes from the side of goods' are allowed to work themselves out upon the price structure; or whether the nature of money calls for a policy of positive action concerning the price system and the stabilization of all prices.

The movement for raising prices 'from the side of money' has spread to a degree unknown hitherto. This is no surprise. Economic life is an everlasting process of adjustment which goes on day after day, hour after hour, in innumerable forms. Each single adjustment is small, but they all combine in one grand total, which is hardly ever perfect, yet normally sufficient. This living organism has been crippled by the War as never before. Maladjustments have accumulated for years without finding a solution, to such a degree that the small natural forces of adjustment are now powerless in face of them. And powerless are, frequently, the arts of men. What is easily achieved in small quantity goes beyond normal powers once it has grown large. The neglect of the prophylactic now necessitates a tremendously difficult cure.

The result is that to-day infringements upon economic life may become necessary, which in times of constant natural adjustment would have been out of the question. The more unusual those infringements, the more painstaking should be the preceding investigation. We must bear in mind that, while most maladjustments are prominently exposed in the price structure, a mere price policy in

[2] This is the case, because a careful utilization of silver makes it possible to avoid shipments of gold for the absurd adjustment of the balances of payment with Asiatic silver countries, and because a stabilization of the price of silver, which is not impossible to achieve, would put an end to gold-hoarding in Asia, or at least reduce it to unobjectionable proportions.

the bulk of cases—there are exceptions—is but a cure of symptoms. The task is normally much greater. It is the task of creating artificially an equilibrium—primarily between costs and prices—which in the normal course of events would have grown organically. Exorbitant profits, no less than insufficient ones, have to be prevented; the new artificial equilibrium must not be rigid; it must be flexible, so that the natural forces of adjustment may resume their wholesome activity. Otherwise a new crisis is bound to develop immediately.

All this goes to emphasize that only careful investigation in every individual case can decide if and to what degree a rise of prices is required. We have no panacea. A rise of prices all round would be ineffective, even if it could be achieved smoothly and without the differences in speed and scope out of which unjustified advantages for one group and unjustified disadvantages for another grow. Such an all-round rise of prices, unless occasioned by increased demand, tends to diminish demand and, thereby, further to widen the dangerous gulf between production and productive capacity. Indeed, every rigid fixation of prices works against progress in the long run. It prevents the lowering of prices through the use of machines and the enhanced demand, and thereby removes the stimulus for the use of machinery.

If the aim of an increased price level is doubtful, the same is true of the means by which it is to be achieved. All of them are sometimes called 'inflation', because they raise prices artificially. Yet they are so different that it is advisable to differentiate between them. It makes all the difference whether the increase of prices is to be caused by an increase in the volume of money circulating or by a devaluation of the currency unit. The former we call inflation in its proper sense; the latter we call devaluation—a phenomenon which in itself has nothing in common with inflation.

III

An increase in the volume of money circulating, unless brought about simply by the issue of paper money, is based upon an artificial expansion of credit. Such credit expansion is two-sided, like every market phenomenon: if it is to be at all effective, an increase in supply has to be met by increased demand. Under normal conditions this is an automatic process, but if the enlargement of supply is artificial a corresponding demand has to be created. Otherwise it may happen that the business community has no use for additional credits. Even if the state uses the new money for the payment of debts or for the financing of public works, it is doubtful—as the United States have demonstrated on the greatest possible scale—whether tendencies are not set to work in other places which bring about a compensatory reduction. The raising of prices through credit expansion is by no means a simple matter.

Even apart from that, credit expansion is more difficult than is generally supposed. We distinguish between a normal and an abnormal expansion of credit. The former is discussed too little, the latter too much, which may be explained by the fact that normal expansion to-day is frequently cramped and needs an artificial support. We talk of a normal expansion when the existing credit facilities are merely used more thoroughly and more fully. Doubt as to the economic soundness may arise if the existing volume of credit is to be not merely more fully utilized, but artificially expanded.

The line of demarcation between normal and abnormal expansion is clearly given under the gold standard. Just as the credit expansion of private banks is limited by the cash reserve, so in the same way the Central Bank is bound by its gold stock. One may even consider it the main object of the gold cover to effect such limitation. It is therefore of the greatest importance that the gold stock should correspond to the economic requirements of the different countries, as used to be the case to a far-reaching degree before the War in all important countries. A gold stock had grown up in close relation to the development of economic life, and monetary policy had no more important function than to maintain its efficiency in this respect. If an expansion of credit seemed economically necessary, this meant that the gold fund had to be enlarged correspondingly.

The limits to a sound credit expansion also exist under a paper currency, but they are not recognizable—and that means almost as much as if they did not exist at all. The choice is between a system where the limitations have a certain rigidity and one where the limitation, not being apparent, is inoperative; and our choice cannot be in doubt since in the one case the rigidity can be mitigated in a number of ways, as experience has shown, whereas in the other case it is not possible in practice to make the limitation more apparent. The drawbacks of a gold standard currency, which lie in its comparative rigidity, disappear in face of the boundlessness which is inherent in a paper currency and which has always led to disaster, unless it had merely a transitory character.

This difference between a gold and a paper currency, however, has during recent years lost much of its previous importance. This is due less to the fact that the paper currency has to accept much of the stern self-discipline of the gold standard if it wants to lead back to it, than to the problems that are created by the fact that too much as well as too little gold cover prevents the formation of a solid basis of credit expansion. This has frequently become a source of danger of inflation or deflation respectively. But I must emphasize again, this is not a characteristic of a sound gold standard, and it is a factor that could be avoided, if the gold standard is to be re-established.

The failure of normal credit expansion after the War is ultimately explained by the international distribution of gold. Before the War gold was distributed according to the monetary requirements of the countries; for the last two decades, however, it has stood under the one-sided influence of the War and its consequences. It is non-economic factors that have brought about increases of national gold stocks to the point of senselessness in some countries, and have equally depleted the stocks of others. At the same time there has arisen an amount of 'vagabonding' capital, which has caused gold to move about in the world as never before, not directed by monetary policies of Central Banks, but exclusively driven by private interests. This movement must be stopped. It seems that the time has come for large-scale international co-operation in this connexion, particularly for the liberal use of international credits which alone will bring the urgently needed results. The fact that a normal expansion of credit was frequently impossible has naturally directed attention to the abnormal, which is justly called inflation. Again we have to differentiate between its different forms in order to see quite clearly.

The non-monetary aims of abnormal expansion can be of a financial character. If a budget deficit cannot be covered either by taxation or by long-term loans, an inflationary expansion of credit may appear as the only way out. Out of this has grown the worst type of inflation, war inflation. As long as the deficit existed, inflation was bound to grow violently. It cannot be corrected or stopped by monetary means; relief can only come from the side of public finance.

There is another milder form of inflation, which is not related to the past, but looks to the future. It attempts to anticipate a more fortunate future for the purpose of mitigating the needs of the present. In such cases everything depends upon the question, whether the expectation of an early recovery is justified or not. The hope, however, so frequently held, that in this manner capital can be created out of nothing, is a superstition like that of the alchemists. If the anticipation of the future proves correct, it is possible through inflation

1929 at a lower figure than that of bonds. A part of the money from circulation and a great part of deposits out of the credit system disappeared. Amongst other things there are two principal causes why money (or gold) increased in value so quickly and to such a marked degree in relation to goods:

1. Bonds retain their income yield, whereas shares and landed property barely continue to produce profits. Comparatively speaking bonds thus become more attractive than goods, and consequently dearer. Because the value of money is closely associated with the value of bonds (and vice versa) the value of both money and bonds rose quickly in comparison with goods.

2. In slack business periods the storage of gold is cheaper than that of goods. There is always interest on goods, cost of storage (including both expenses and shrinkage), which are not connected with the storage of gold. During a depression the demand for gold is greater than that for goods, and consequently gold must rise in value more quickly than goods.

From these considerations it will be seen that the putting in circulation of money by a so-called 'open market' policy on the part of the banks of issue during a depression such as that of to-day can have no influence on economic conditions. With bonds (e.g. State bonds) bringing in about 5 per cent. and with no market demand for money (the surplus money does not have a yield value of 5 per cent.) the money thus brought into use directly or indirectly had to disappear from circulation again. This method of increasing the quantity of money was therefore ineffective.

It follows from this and also from the yield theory of money that a devaluation of the currency in itself can have no decisive effect. Let us assume that all Western countries in 1932 had reduced the gold value of their currency up to 40 per cent., then only a somewhat more bearable debt burden would have been achieved. 'Superfluous' agrarian staple products would, however, not thereby disappear from the market, and the purchasing power of the farmers would not rise sufficiently. A simultaneous devaluation of all values of the Western countries would, in such cases, in my opinion, inevitably lead to a further reduction of prices (calculated in gold) for agrarian products (staple products).

If we wish to realize a more stable money value or to obtain a permanent stabilization of the prices of raw materials, we must ask ourselves the question why the price formation of these goods is so unstable. It is also necessary to get an idea of the influence which the price of each separate product has on the general business position.

The economic centre of gravity of the present crisis lies in the very difficult adaptation of production and consumption of the economically inelastic agrarian products in the Western countries to the low prices. Among other things, this is a consequence of the standard of living which was achieved through the development of the economic organization in the countries of the West. Whereas, for example, in Japan a rich rice harvest brings about a greater consumption of rice and vice versa, a larger wheat harvest does not as a result lead to any greater consumption in the West worth mentioning. A reduction in the bread price has practically no influence on the consumption of wheat. The demand for wheat is very inelastic and that for other agrarian products has the tendency to become more and more inelastic with a further increase of the general standard of living. This is a very important fact whose consequences we must take into account. The time when low prices of wheat still induced a considerably higher consumption and a better nourishment of the nation is already about seventy-five years behind us in the West, a time when wages expressed in wheat were less than half of those obtaining to-day.[4] From this it is clear that in the Western countries, without economic reorganization, all subsequent over-production of agrarian raw materials (assuming that we are successful in our efforts to go on increasing prosperity in the future) will meet with greater and greater difficulty if it is to be overcome by increased consumption. A trade cycle policy which disregards this can never be practicable. It has always been hard for production in agriculture to adapt itself to lower prices. The apparatus for agrarian production can, to all intents and purposes, not be cut—not even to a small extent. The more complicated the credit structure is in agriculture, the more difficult such a limitation becomes. Attempts have been made in nearly all Western countries to restrict and to destroy production, but both from an economic and ethical point of view these remedies deserve the severest censure. The various harvest failures in 1934 have proved more than anything else how dangerous is a restriction policy for the proper securing of the food of the nations. The more production becomes specialized in Western countries the more also will the credit system extend in agriculture, and the more difficult it will be in future to limit agrarian production to deal with a possible over-production.

During the last serious agricultural crisis, agricultural production did not shrink, but extended still farther, even if the extension in 1891–1902 was somewhat smaller than that from 1903 to 1914.

[4] Warren and Pearson, *Prices*, p. 202.

in the average prices of imports has, of course, strengthened the internal general price level.

The English suspension of September 1931, which is but a preparation for devaluation, is very different from the devaluations which have been put through as a consequence of war in such countries as Germany, France, Belgium and Italy. These earlier devaluations merely put a legislative stop to inflation after the financial cause of the latter had finally been removed; they fixed legally what had been achieved practically. The two devaluations, which form to-day the centre of discussion, could almost be called stragglers of war development, originating, as they do, from those two participants in the War who had not decided upon devaluation before. Yet the delay means at the same time a change in purpose. It is not a question of fixing a condition previously attained, but of bringing about a new condition, and it is realized that for that purpose mere devaluation is not sufficient. It is for that reason that England made a virtue of necessity and introduced an intermediate period of paper currency. The elasticity of this arrangement makes it possible to arrive at a new equilibrium between the value of money, prices, and costs carefully adapted to the internal economy by ever-renewed small tentative adjustments, and to provide therewith a solid basis for the legislative act of devaluation. Not before this much-misconstrued task of internal reorganization of the currency system has been fulfilled by every individual country can the further task of achieving international equilibrium be successfully attacked. Only then can we rebuild what had grown up organically during long years before the War and fix the international rates of exchange without any one country attempting to keep the external value of the currency lower than the internal.

The devaluation of a currency produces a number of important effects. It results in an increase in the price of foreign commodities. The internal general price level is raised in proportion to the part played in the internal economy by imports from gold standard countries. At the same time exports are increased—at least temporarily—though this advantage can, as England's policy has shown, be converted into a permanent one. It also reduces the burden of indebtedness, although it depends on the strength of creditors and debtors, as well as on the kind of indebtedness, whether such reductions turn out to the benefit of the national economy as a whole. And since a devaluation of the currency increases at the same time the value of the gold stock, it causes the state to make a 'profit'—of doubtful value, to be sure—which is the larger the greater the size of the gold stock. In the United States it amounted to nearly three milliard dollars.

In a country that does not own a large gold fund this possibility of profit is non-existent. Where a far-reaching alleviation of the burden of indebtedness has already been attained once, the repetition of the process may be dangerous. If exports are already stimulated by other means, this factor, too, loses its attractiveness. Finally, in a country which has other methods of raising prices at its disposal (if indeed this increase is in the interest of the whole nation), no further steps are required. In a country like Germany, therefore, the advantages of devaluation lose much of their weight, at least for the present, where they are heavily overweighted by the disadvantages. If measures of this kind are to be taken into consideration, it can only be because other reasons compensate for the unavoidable losses. Such reasons could only lie in the field of general currency policy.

There are three groups of countries which are of special importance for the future solution of the international currency problem: the gold-standard countries, led by France, the so-called sterling bloc, and the United States, which in many respects are close to the sterling bloc. There can be no doubt that the sterling bloc is by far the most prominent (even without participation of the United States) in its unity, strength and economic importance.

Yet there is no lack of efforts to increase the strength and importance of the gold bloc as well. It would be a regrettable international development if the difference, which has grown up historically, should develop into a lasting and fundamental cleavage. A strong common interest works for agreement, which is not impossible; but this is not an occasion for its discussion.

In retrospect one is naturally reminded of the development of the currency problem in the beginning of the nineteenth century. At that time the old gold-standard system developed after a long period of trial and experiment—a system that was destined to become decisive in the end for the currency organization of all civilized countries. To-day England lives again in the middle of such a period of conscious transition, where voluntary and unvoluntary decisions, creative action and mere 'muddling through' are combined in one indefinable whole. It is not a matter of realizing dogmatic notions but of crystallizing the inherent logic out of the facts and conditions of our day. The final result already becomes noticeable in its rough outline. It will not be a copy of the old. It will be, as once before, the fruit of an entirely new set of conditions.

It is to be hoped that the result is not too far off. The recovery of international trade depends on the international recovery of the currency system; it is an essential for the strengthening and prosperity of agricultural import countries no less than for agricultural export countries. The first necessity, however, is to clear the international debt and credit system of the dangers that have arisen out of the War. Other prerequisites for the solution of the international currency problem are not necessary provided there exists a good will for co-operation. The reorganization of international trade and of international currencies can only proceed simultaneously. Both issues cannot be solved at once. If the new is to be durable, it will grow out of small and careful beginnings. It is to be hoped that men may not be lacking who combine such far-sightedness, efficiency, and patience as are indispensable for the achievement of the great goal.

STABILIZATION OF THE GENERAL PRICE-LEVEL BY INTERNATIONAL VALORIZATION OF WHEAT, SUGAR, COTTON, COFFEE, AND RUBBER

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THE present crisis, which began in 1929 and continually increased in violence until 1933, and which has led to an unprecedented trade-political and monetary chaos, is an international crisis. It is, therefore, clear that the purely national measures undertaken to meet it cannot hope to be effective. The various measures undertaken by the various governments have incidentally proved that an orderly business cycle policy cannot be achieved exclusively through national efforts.

When we say that the crisis is an international one, we must keep in mind that this economic phenomenon cannot be called universal. From the course of prices and of employment it is clear that it is the Western states which have been hit in the same way and at the same time by the phenomenon of the trade cycle.

Everywhere where Western civilization prevails, in other words everywhere where the Christian religion has more or less influenced the development of the civilization of nations, everywhere where the white race has the upper hand, there is a crisis, over-production, under-consumption, unemployment. The problems of Russia are not identical with those of the West, nor are those of Japan and China, although both the Russian group and the Chinese-Japanese group meet in certain domains with difficulties similar to the West by having adopted some of the economic institutions of the Western world. In addition, the problems of Western civilization are, to a certain extent, influenced by variations in the Russian and Japanese economic structures. On the one hand, Russia possesses the power, by reason of the monopoly of its foreign trade, of dislocating now and then the markets of the West; on the other hand, Japan, by reason of the low standard of living of its workers, can at times offer its products at dumping prices and disregard competition from Western industries. During the depression in the West this has had extraordinarily undesirable results.

On the whole, those regions have been most seriously hit which have a specialized and differentiated production, that is, the so-called highly capitalist and new capitalist areas.[1]

The question is often put: Is the crisis a result of over-production or of deflation? By over-production is understood a state of affairs under which a large part of the productive apparatus produces more than can be consumed, whereas by deflation is understood the reduction in the price of goods as a consequence of an increase in the value of money, or of an increase in the value of gold.

My answer to the question whether we have to deal with over-production or deflation is as follows: We have to do with both, for over-production results in deflation and deflation in over-production. The remedy which I would advocate against over-production or deflation is not limitation of production by restriction or destruction, nor inflation by reduction of the value of gold or of the money unit, but an extension of over-production, whereby the agrarian staple products, such as wheat, sugar, cotton, coffee, and rubber, produced in excess from time to time would be used to increase the money circulation, in much the same way as the enormous gold 'over-production' is used to-day for increasing the money in circulation. With this method of dealing with the crisis both over-production and deflation would be simultaneously met by the fact that a slight inflation had been caused by over-production.

At this point I wish expressly to state that the prevention of deflation by increased supply of money can have only very little effect. History has shown us a connexion between the cost-of-living index and the monetary stock of gold. Too large or too small a stock of money metal, however, affects the price-level very slowly, and a too small stock of money metal can never instigate by itself a catastrophic fall in prices, as in 1929. The rapid appreciation of money in relation to goods, especially after 1929, can be attributed only to a small extent to the lack of gold or of money.

When we say that gold becomes dearer and consequently all goods cheaper, we must, at the same time, keep in mind that gold has a special importance through the combination of the value of money with gold and through the connexions of debts and bank deposits with money, and thus with gold in our credit system. We must pay special attention in this respect to the factors which determine the value of money.

As Greidanus[2] maintains, the value of money rests to a large extent on the *yield* which money brings to the person who uses it. Just as the business man and the customer must have at their disposal certain stocks of commodities, so there is a continuous need of a stock of money. The value of the yield of this money corresponds more or less to the yield of bonds. Lack of time prevents my treating this matter in detail, but with the help of a few graphs of credit and property conditions in western countries (Europe—excluding Russia—but with Colonies, the British Commonwealth, and the North and South American States) I wish to bring this theory of Greidanus into harmony with the changes in the value of money in the last few years. (See Fig. 1.) The data used are based on estimates which may be somewhat inaccurate, and yet give a fairly clear picture of the position.

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[1] Ernst Wagemann, *Konjunkturlehre*, p. 224 et seq.

[2] Greidanus, *The Value of Money*, P. S. King & Son, London, 1932.

The first part of the diagram represents conditions in 1925. Starting from the bottom, there is shown first capital consisting of monetary gold and other objects, of which a certain number consists of stocks of agrarian staple products. The amounts are estimated at:

(*a*) 24½ milliard Dutch guilders for the monetary stocks of gold.

(*c*) 2,500 milliard Dutch guilders for the remaining capital (about three times the amount mentioned by Warren and Pearson as the capital of U.S.A.); x milliard Dutch guilders for stocks of agrarian staple products.

On this capital basis there rested the money and credit system with

(*b*) A circulation of notes and gold, increased by the amount of credit balances of the banks of issue, of about 50 milliard guilders,

(*d*) the deposits of the trade banks amounting to about 175 milliard guilders, and

(*e*) long-term loans in the form of mortgages, bonds, &c., amounting to 1,250 milliard guilders. (This last figure is again about three times that mentioned by Warren and Pearson as the internal debts of the United States of America.)

Above this is a representation of the yield of these money, credit, and capital items. The assumption has been made of an interest of 5 per cent. on bonds, an income value of 5 per cent. on property, and an approximate 'consumption-value' of 5 per cent. on money. Of this yield of the money a part falls to the share of the note banks, whereas of the deposits of the trade banks a part falls to the share of such banks. A part is paid as deposit interest (less for short-term, more for long-term deposits), whereas the remaining part constitutes the yield of the deposits as money. The yield of the stocks of staple goods must naturally be much larger than the yield of money stocks, because the storage for these commodities amounts to about 8 per cent. for storage expenses and shrinkage (with wheat, for example),

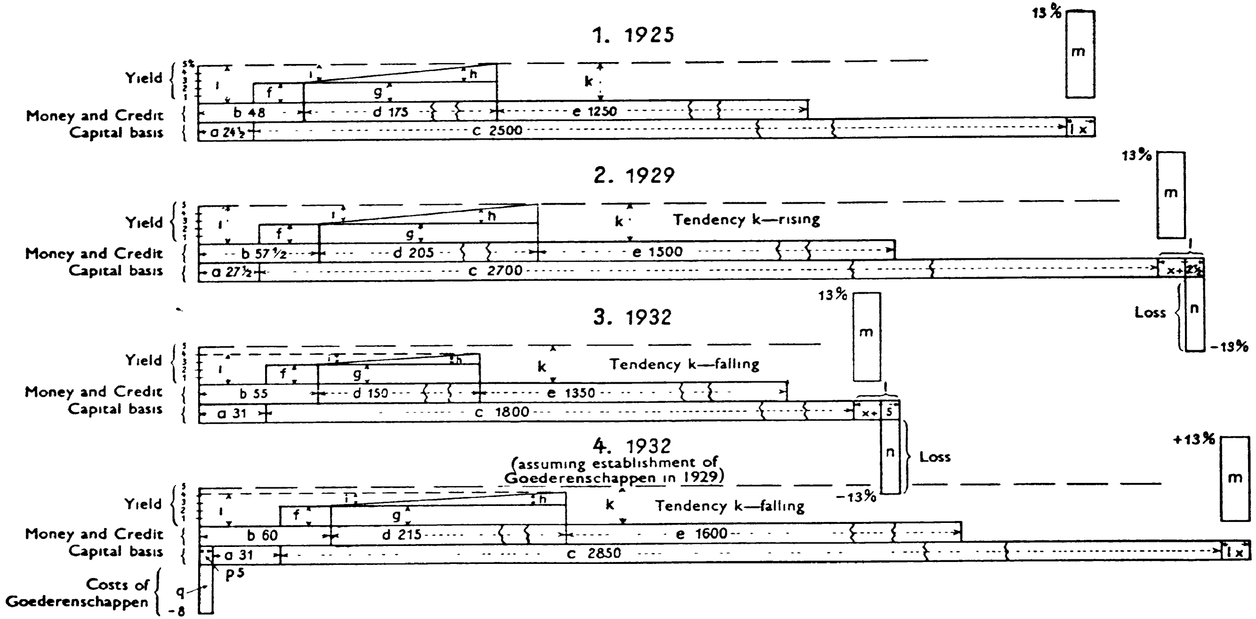

FIGURE I

a. Monetary Gold Stocks (in milliard guilders).
b. Gold and Notes in circulation plus deposits of note banks (in milliard guilders).
c. Total remaining capital (in milliard guilders).
d. Deposits of commercial banks (in milliard guilders).
e. Total of long-term credits (mortgages, bonds, &c.) (in milliard guilders).
f. Profit of note banks.
g. Profit of commercial banks.
h. Interest on deposits.
i. Money yield.
k. Interest on long-term credits.
l. Stocks of agrarian staple commodities (in milliard guilders).
m. Yield of stocks.
n. Losses through surplus.
p. Monetary stocks of commodities in *Goederenschappen* (in milliard guilders).
q. Costs of *Goederenschappen*.

irrespective of the interest which would be obtained for the same amount from bonds. In 1929 conditions were as shown in the second part of Fig. 1:

The capital base is as follows:

(*a*) $27\frac{1}{2}$ milliard guilders monetary gold stocks increased by the gold in circulation;

(*c*) 2,700 milliard guilders for the remaining capital; $x+2\frac{1}{2}$ milliard guilders representing agrarian staple products.

The money and credit system dependent on this amounted to:

(*b*) $57\frac{1}{2}$ milliard guilders gold and note circulation, increased by the credit balance of the banks of issue;

(*d*) 205 milliard guilders deposits in trade banks, and

(*e*) about 1,500 milliard guilders mortgages and bonds.[3]

The stocks of agrarian staple products were in excess of the requirements of trade, the normal stocks being taken at x milliard guilders. The fall in prices of agrarian raw-product stocks had caused a surplus in stock of about $2\frac{1}{2}$ milliard guilders value, whereby the yield of capital invested in agriculture and for this reason the yield of many other undertakings was reduced. The income value of the unencumbered enterprises also fell; the destruction of the economic balance limited the amount of business done. There took place a flight from commodities to money. The volume of credit contracted. While the agrarian production and especially short-term production could be cut down only with very great difficulties, and trade fell off as a result of the crisis, stocks in agrarian staple products increased, so that the conditions in 1932 were approximately as follows (see part 3 of Fig. 1):

Capital basis:

(*a*) 31 milliard guilders monetary gold stock increased by the amount of gold in circulation;

(*c*) 1,800 milliard guilders for the remaining capital; $x+5$ milliard guilders representing agrarian staple products (calculated according to the prices of the year 1929).

The money and credit resting on this:

(*b*) Gold and note circulation, plus credit balances of the note banks, about 55 milliard guilders;

(*d*) deposits of the trade banks, about 150 milliard guilders;

(*e*) bonds and mortgages about 1,350 milliard guilders.

We can put the yield of the money after the outbreak of the crisis in

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[3] On account of insufficient data, I have taken here an amount three times as large as the national assets of the United States of America (see Warren and Pearson, *Prices 1933*, p. 237, 5th printing).

1929 at a lower figure than that of bonds. A part of the money from circulation and a great part of deposits out of the credit system disappeared. Amongst other things there are two principal causes why money (or gold) increased in value so quickly and to such a marked degree in relation to goods:

1. Bonds retain their income yield, whereas shares and landed property barely continue to produce profits. Comparatively speaking bonds thus become more attractive than goods, and consequently dearer. Because the value of money is closely associated with the value of bonds (and vice versa) the value of both money and bonds rose quickly in comparison with goods.

2. In slack business periods the storage of gold is cheaper than that of goods. There is always interest on goods, cost of storage (including both expenses and shrinkage), which are not connected with the storage of gold. During a depression the demand for gold is greater than that for goods, and consequently gold must rise in value more quickly than goods.

From these considerations it will be seen that the putting in circulation of money by a so-called 'open market' policy on the part of the banks of issue during a depression such as that of to-day can have no influence on economic conditions. With bonds (e.g. State bonds) bringing in about 5 per cent. and with no market demand for money (the surplus money does not have a yield value of 5 per cent.) the money thus brought into use directly or indirectly had to disappear from circulation again. This method of increasing the quantity of money was therefore ineffective.

It follows from this and also from the yield theory of money that a devaluation of the currency in itself can have no decisive effect. Let us assume that all Western countries in 1932 had reduced the gold value of their currency up to 40 per cent., then only a somewhat more bearable debt burden would have been achieved. 'Superfluous' agrarian staple products would, however, not thereby disappear from the market, and the purchasing power of the farmers would not rise sufficiently. A simultaneous devaluation of all values of the Western countries would, in such cases, in my opinion, inevitably lead to a further reduction of prices (calculated in gold) for agrarian products (staple products).

If we wish to realize a more stable money value or to obtain a permanent stabilization of the prices of raw materials, we must ask ourselves the question why the price formation of these goods is so unstable. It is also necessary to get an idea of the influence which the price of each separate product has on the general business position.

The economic centre of gravity of the present crisis lies in the very difficult adaptation of production and consumption of the economically inelastic agrarian products in the Western countries to the low prices. Among other things, this is a consequence of the standard of living which was achieved through the development of the economic organization in the countries of the West. Whereas, for example, in Japan a rich rice harvest brings about a greater consumption of rice and vice versa, a larger wheat harvest does not as a result lead to any greater consumption in the West worth mentioning. A reduction in the bread price has practically no influence on the consumption of wheat. The demand for wheat is very inelastic and that for other agrarian products has the tendency to become more and more inelastic with a further increase of the general standard of living. This is a very important fact whose consequences we must take into account. The time when low prices of wheat still induced a considerably higher consumption and a better nourishment of the nation is already about seventy-five years behind us in the West, a time when wages expressed in wheat were less than half of those obtaining to-day.[4] From this it is clear that in the Western countries, without economic reorganization, all subsequent over-production of agrarian raw materials (assuming that we are successful in our efforts to go on increasing prosperity in the future) will meet with greater and greater difficulty if it is to be overcome by increased consumption. A trade cycle policy which disregards this can never be practicable. It has always been hard for production in agriculture to adapt itself to lower prices. The apparatus for agrarian production can, to all intents and purposes, not be cut—not even to a small extent. The more complicated the credit structure is in agriculture, the more difficult such a limitation becomes. Attempts have been made in nearly all Western countries to restrict and to destroy production, but both from an economic and ethical point of view these remedies deserve the severest censure. The various harvest failures in 1934 have proved more than anything else how dangerous is a restriction policy for the proper securing of the food of the nations. The more production becomes specialized in Western countries the more also will the credit system extend in agriculture, and the more difficult it will be in future to limit agrarian production to deal with a possible over-production.

During the last serious agricultural crisis, agricultural production did not shrink, but extended still farther, even if the extension in 1891–1902 was somewhat smaller than that from 1903 to 1914.

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[4] Warren and Pearson, *Prices*, p. 202.

During the last agricultural crisis, however, the industry was able to recuperate much more quickly from the consequences of the destruction of purchasing power of the farmer than in the present-day depression. This can be accounted for by the more complicated economic structure, that is to say, the credit structure. The over-production of agrarian staple products, which became acute in 1929, destroyed the purchasing power of the farmers, the result being an under-consumption of industrial products, which among other things was the cause of over-production in industry, this in its turn resulting in low prices and unemployment, whose reaction again was felt by agriculture, &c. To this was added the fact that industry and the credit system in 1929 were in a state of tension and unstable equilibrium and inevitably collapsed through the setback in agricultural prices. You know the details of this matter sufficiently well and they, among other things, were treated in great detail at the Conference at Ithaca in 1930. I wish to draw attention specially to Professor Sering's 'Causes of the International Depression of Agriculture' in the proceedings.

It is well known that the raw material producers are the chief sufferers in every crisis, and the greatest difficulties during a depression are experienced in the sphere of the staple products. In order to find out which staple products have most influence on the trade cycle, we must have an idea of the importance of each separate product. Table I gives a survey of the importance of each commodity in world production and world consumption, the average yearly production between 1920 and 1930 being shown in milliard guilders.

Of the raw materials mentioned in this table, gold is the standard of value whose production is stimulated by a low general price-level and retarded by a high one. Gold production thus has a contrary tendency compared with the other raw materials.

Coal, petroleum, iron, copper, and tin are industrial raw materials, which are partly controlled by trusts and cartels, and whose production reacts to moderate reductions in price. The greatest difficulties are met with in the adaptation of agrarian raw material production to lower prices.

Rice, although it is a very important food, has, during the present depression, caused comparatively few difficulties, because it is mainly produced and consumed in semi-capitalist regions and in districts in which men are well armed against over-production.

Wheat is the most important cereal product. The world trade in this product is more important than that in other kinds of grain, and world wheat stocks exceed those of all other kinds. The wheat price dominates cereal prices in general, and thereby the prices of other agricultural products, so that the price of wheat directly controls the price of half of all other important raw materials. The consumption of wheat, as has been said, is in great measure inelastic.

TABLE I. *Average Annual Value of World Production of Staple Commodities, 1920–30*

No.	*Commodity*	*Average value in Dutch guilders*
		milliards
1	Coal	15·5
2	Rice	13·0
3	Wheat	13·0
4	Maize	9·0
5	Petroleum	8·0
6	Sugar	6·0
7	Oats	5·4
8	Cotton	5·3
9	Wool	3·9
10	Rye	3·8
11	Iron	3·7
12	Barley	2·8
13	Coffee	1·2
14	Copper	1·0
15	Rubber	1·0
16	Gold	1·0
17	Tea	0·5
18	Tin	0·4

Sugar is a product with a unique market. The consumption could be considerably increased if the taxes on it were reduced in various countries, and if the price to the consumer were brought more into harmony with that received by the producers.

Cotton is a basic material for the textile industry, with an inelastic demand to the extent that although temporarily low prices may encourage consumption on the part of cotton manufacturers, this does not last very long.[5] Cotton, to some extent, dominates the market for wool, flax, &c.

Coffee is a product with a very difficult business cycle in consequence of the nature of its growth. When demand exceeds supply, prices go up and new plants are put into the ground; but it takes about six years before their fruit comes on to the market. Hence there arises over-production with low prices, and reduction of new coffee plantings. Ultimately a new balance is obtained, the market cycle of coffee covering about sixteen years. In the course of time the demand for coffee becomes more and more inelastic and the supplying countries consequently seek other methods of adjustment, e.g. coffee destruction by the Brazilian Institute for the Defence of Coffee.

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[5] L. H. Bean, 'Post-War Agriculture and Business', *Proc. of the Intern. Conference of Agricultural Economists*, 1930.

Rubber, like coffee, is a product with a very difficult cycle. In this case it also takes about six years before newly planted trees yield rubber. In times of higher prices (1925) plantings increase by leaps and bounds, with a consequent over-production after about six years. Rubber consumption is also very inelastic although there is a certain amount of compensation from the reclamation of rubber in times of high prices.

Other raw materials play a much smaller part in the market position, as the amount of their yearly production is comparatively meagre. Of the raw materials discussed, wheat is by far the most important in relation to the trade cycle.

Under the monetary system of the last decade, we have been accustomed in the West to express our prices in money, the value of which has been bound up with gold. For the sake of this system international society keeps in the vaults of note banks and treasuries 30 milliard guilders in gold. In order to bring about a better economic organization, we must link up money with those products of greatest importance to the state of trade, namely, wheat, sugar, cotton, coffee, and rubber, particularly wheat, since the prices of sugar, cotton, coffee, and rubber are being compulsorily regulated from year to year by international agreement. I have chosen wheat because, as already said, this has an extraordinarily great influence on trade conditions, much greater than that of any other product. Free price formation for the other four products also raises great difficulties, as explained above.

We can link up the value of money with the products mentioned by the setting up of international institutions, which I have called in Dutch *Goederenschappen* (in English, international goods stores, corn granaries, &c.). A *Goederenschap*, or goods store, is an international institution to finance the world stock of a given commodity to the extent to which the commodity is offered to it and which administers this stock and regulates the price of the commodity on the world market. A *Goederenschap* can fix the desired buying and selling price. It would be bound to buy or sell at the fixed prices any and every quantity, which is supplied or demanded, of the product in question. (Not a definite quantity as was purchased at the time by the American Farm Board, but any and every quantity.) Money would be brought into circulation against the value of the goods in the *Goederenschappen* and distributed among the co-operating countries. These goods would thus be financed with new money and not with credit.

The losses which these international institutions would necessarily incur would consist of shrinkage and storage expenses and would have to be paid by the co-operating countries. There would therefore be just as little need to charge interest as with the storage of gold for monetary purposes.

These *Goederenschappen* would have to be set up to begin with by the Western countries. The cost of storage might be allocated between the co-operating countries according to their financial resources, the total monetary circulation each year being taken as the basis (see Table II). The amount of money in circulation offers a much better standard than the population because the business barometer for the most part goes up and down in harmony with the amount of money in circulation.

TABLE II. *Distribution of Annual Costs of 'Goederenschappen'*

	per cent.
U.S.A.	25
France	12
England	9
Germany	8
Argentina	7
Italy	5
Spain	4
British India	3½
Brazil	2
Netherlands	1¾
Belgium	1¾
Czechoslovakia	1¼
Australia	1·1
Switzerland	1
Yugoslavia	0·9
Poland	0·9
Egypt	0·8
Austria	0·8
Sweden	0·7
Dutch Indies	0·7

If we wish to restore the price-level of 1929—amongst other things because most international debts which are now a burden on national finances and on business life were entered into in the period between 1915 and 1929, that is to say during a high price-level—then the prices would have to be (in Dutch florins): wheat, 13·0 per 100 kilo; sugar, 15·0 per 100 kilo; cotton, 1·0 per kilo; coffee, 0·80 per kilo; and rubber, 0·60 per kilo. (The cost of production of rubber has gone down considerably in the last few years.) It should be noted that in calculating these prices I have not taken into account the exchange fluctuations which have taken place in most countries during the crisis.

In Table III are shown, in the first column, the world stocks of the products in question, as they would approximately have been taken up if *Goederenschappen* had been set up in 1933; in the second column the prices on which it would have been necessary to base the valorization; in the third column the total sums which would have been involved; in the fourth column, the yearly expenses connected with storage; and in the fifth column the total amounts of storage costs yearly if the stocks had remained constant.

TABLE III. *Estimated Transactions in World Stocks by 'Goederenschappen' (on basis of 1933)*

Commodity	*Stock in metric tons*	*Valorization price in guilders per kg.*	*Total value of stock in guilders*	*Yearly cost of conservation in %*	*Total yearly cost of conservation in guilders*
	millions		millions		millions
Wheat	8	0·13	1·040	9	94
Sugar	3	0·13	450	12	54
Cotton	1·5	1·00	1·500	7	105
Coffee	1·5	0·80	1·200	6	72
Rubber	0·6	0·60	0·360	5	18
Total			4·550		343

In addition to the 30 milliard guilders of monetary gold which is already stored by Central Banks, &c., there would have to be stored at the outset in the *Goederenschappen* 4½ milliard guilders in commodities. The yearly expenses necessary for the storage of this quantity would be about 340 million guilders, or about fl. 0·60 (1 mark, 1*s*. 6*d*., 40 cents) per head of the population of the Western countries, counting upon a co-operation of about 600 million people. This is, per head, something less than 1 per cent. of the taxes paid by every Dutchman yearly.

As stated, the price of wheat would be definitely tied up once and for all to gold, and consequently to money. The prices of the other raw materials would have to be capable of adjustment to allow for changes in costs of production relative to those of wheat, or for relative changes in demand. This would express itself in the yearly increase or decrease of stocks of those commodities (sugar, coffee, cotton, or rubber). With the fixing of the price of coffee and rubber, any extension of production and consumption would have to be carefully watched, because an increase in production cannot be achieved until a certain number of years after the extension of plantings. With these products it is thus of advantage to have fairly large stocks in the *Goederenschappen* in order to prevent further shortages.

By the valorization of these products, and thus indirectly also of the remaining agricultural products, the purchasing power of the farmer would be again restored and indirectly industrial production would be once more revived. Unemployment would go down and the price-level of the non-valorized products would inevitably increase by degrees. This increase in the price-level would be brought about by the fairly considerable expansion of the production of the valorized products which is to be expected at the beginning; but owing to technical obstacles this expansion could hardly be so great that world stocks at the commencement would have to increase by more than 1 to 2 milliard guilders per year. The greater amount of money in circulation therefrom would bring about a higher price-level of the non-valorized products, and by this means, after a few years, expansion of the production of the valorized commodities would be automatically retarded, as is now the case under the gold standard with gold production.

If after four to six years the world stock of wheat, sugar, cotton, coffee, and rubber amounted to more than 10 milliard guilders, the commodity basis of money, which to-day amounts to about 30 milliard guilders, would be extended up to about 40 milliard guilders. This extension would certainly be enough to stimulate the price-level to a certain extent, so that stocks of wheat, &c., would again go down. Through stocks becoming less, a lower price-level would again in course of time be brought about; whereupon the production of wheat again would be stimulated and so on.

An orderly discount policy through international co-operation of the Central Banks and an intelligent business cycle policy on the part of the authorities, in association with the execution of public works, would be of great importance in regulating world stocks of the valorized products and might assist in keeping stocks at not more than 10 milliard guilders. In that case, the yearly costs per head of the population need only be fl. 1·50 (3*s.* 9*d.*, $1·0), that is to say, a negligible sacrifice compared with the vast interests affected by a mastering of the trade cycle. At the same time an orderly discount policy and systematic national policy might have a steadying effect on the market fluctuations which might occur in spite of the *Goederenschappen.*

If we assume the setting up of *Goederenschappen* in 1929 and bring the position of 1932 into the picture of the money, credit, and capital structure (see Fig. 1), then we see that out of the stocks of commodities there comes into the *Goederenschappen* as much as trade can dispense with. (According to the estimates in 1932, for about 5 milliard guilders.)

The basis of capital will then be as follows:

(*p*) Monetary stock of commodities of the *Goederenschappen*, about 5 milliards.

(*a*) Monetary gold stock of the note banks, plus gold circulation, about 31 milliard guilders.

(*c*) Total capital, about 2,850 milliards.

The extent of money and credit would then have amounted to:

(*b*) Gold and note circulation, plus credit balances of the note banks, about 60 milliard guilders.

(*d*) Commercial bank deposits, about 215 milliard guilders.

(*e*) Bonds and mortgages, about 1,600 milliard guilders.

In this case a larger monetary circulation supports a somewhat lower yield of money; hence a tendency would arise for a reduction of the rate of interest on bonds, leading to a stimulation of economic life and to a rise in prices of the non-valorized commodities. (This would provide an automatic check to an expansion of production of the valorized commodities.) The greatest importance for stability in the value of money rests with the *Goederenschappen*, from the fact that, as a consequence of the stable prices of the most important commodities, there can no longer be such great differences between the yield of shares (and therefore between industrial enterprise) on the one side and bonds on the other.

Whilst with *Goederenschappen* the gold standard would remain in existence and gold can and must be used for the stabilization of the rate of exchange in international dealings—so that gold can never remain distributed quite uniformly in the Central Banks of the co-operating countries—the money which is given against the products stored in the *Goederenschappen* would be distributed in a fixed ratio among the co-operating countries (in the same way as the costs of the storage would be uniformly distributed).

The establishment of *Goederenschappen* presupposes the abolition of trade barriers which stand between the co-operating states, as well as the other national economic measures directed against co-operating states. It also presupposes a definitive currency stabilization which obviously would be correspondingly facilitated by the *Goederenschappen.*

Unfortunately there is not enough time to go into this matter in greater detail. To make things clearer, I have enclosed a graphic representation (see Fig. 2), which contains a possible development of stocks and trade cycle policy relative thereto. I have described both more fully in my book: 'Mastery of Trade Cycles by *Goederenschappen*'.[6]

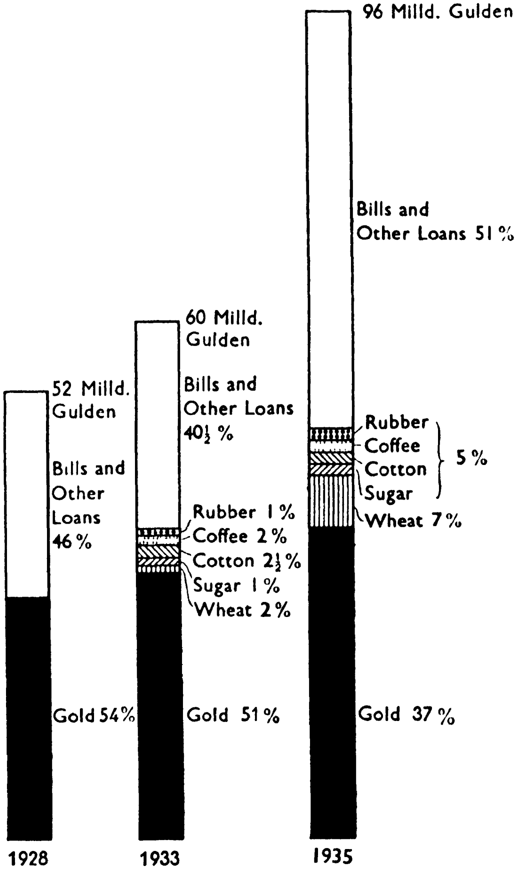

FIGURE 2. Growth of value of assumed valorized Stocks and assumed Currency Circulation, 1933–5

From the establishment of these *Goederenschappen*, agrarian producers, in the first instance producers of agrarian staple products, but indirectly also producers of finished products, would be able to reckon on a more stable purchasing power. This stable purchasing power would cause neither a 'boom' demand on the part of the farmer, nor would there take place a great temporary destruction of purchasing power by price reductions. Fluctuations in business would be repressed in this way, so that the establishment of *Goederenschappen* would be neither a one-sided interest of the producer, nor a one-sided interest of the consumer, nor a one-sided interest of the raw-material-exporting country. The setting up of *Goederenschappen* would be of general international interest for Western countries, and the costs must consequently be borne jointly by the countries in deliberate co-operation.

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[6] *Conjunctuurbeheersching door Goederenschappen*, published by D. B. Centen, Amsterdam, 1933.

Thanks to the stable purchasing power of the farmer, industrial crises could no longer be so violent, while the fluctuating purchasing power of the rural population could no longer cause such big disturbances in industrial business life. It is true that through larger or smaller harvests, slight temporary deviations might be caused in economic activity. In this way the general price-level would fluctuate much less than hitherto, and periodically occurring unemployment would not be so great. It is obvious that the present crisis has been too extensive to arrange for the setting up of *Goederenschappen* before the end of the depression. The shrinkage of production in many cases is so far advanced that even if a wheat *Goederenschap* were set up now, the stocks of wheat would completely disappear within two years, because production would, for the time being, lag behind the consumption. At the same time, the mentality of the Western countries to-day is not yet ready to make another sacrifice, whereby raw material prices would be raised. This could not be expected to-day from the groups of consumers (including also the live stock industry) who are suffering so much from the crisis. Moreover, for this international co-operation the currency of the co-operating countries would have to be stabilized at a corresponding level and it seems that the countries of the 'gold bloc' are not ready for this to-day. All national crisis institutions and trade hindrances would also have to be done away with, which perhaps no one would dare to do to-day. It will probably be necessary to wait until the crisis is past, which, in my opinion, will soon be the case. The end of the depression will be caused by a scarcity of a number of agrarian products. This will cause prices to rise and the depression will gradually disappear. Probably the purchasing power of the farmers at the end of 1935, with a comparatively good harvest, will be sufficiently great to bring new activity to the industry. The damage to international trade can probably not be made good entirely, although with the disappearance of the crisis a large number of the measures called into life by the crisis may be automatically rescinded.

It is, however, urgent and necessary for Western countries to leave no stone unturned to prevent a subsequent reduction in price of agrarian staple products. For this purpose the building up of the necessary organization should be prepared from to-day onwards with all speed, so that this organization may be ready in good time. In this organization *Goederenschappen* will be an indispensable link which will prevent both a general bankruptcy of farmers and a universal shortage in raw materials, and which, by the necessary intensive international co-operation, will contribute to a peaceful understanding of peoples, to an increase in the common weal, and consequently to the development of arts, science, and religion.

THE INTERNATIONAL DEBT AND CREDIT PROBLEM

HJALMAR SCHACHT

President of the Reichsbank

IT was with great pleasure that I accepted some months ago Herr Geheimrat Sering's invitation to read a paper at your Conference, as there was then the possibility that I might take part in your discussions as an independent, so to speak. For it is in this sense that I, at least, have always used my position as President of the Reichsbank. In the meantime, I have been made by the Leader and Chancellor acting Minister of Economics. Nevertheless, I thought it right not to cancel to-day's lecture, but I must ask you to take my remarks as merely private ones and not as statements of a member of the Government.

On the other hand, the government office which I hold for the time being has provided me with the welcome opportunity to convey to you the best wishes of the Government of the Reich. I have reported to the Chancellor on the tasks of this Conference and he has shown great interest in it. The Chancellor told me—I am very glad to state—to convey to this International Conference of Agricultural Economists his greetings and his best wishes for the success of their important work.

The question of when prosperity will finally return to the world is, in the fifth year of the international crisis, troubling people everywhere. If the present economic development were taking place according to economic laws alone, this question might prove answerable. But, since Versailles, business has been overshadowed by politics, and, therefore, we can only observe whether and, if so, what economic factors are putting obstacles in the way of economic recovery.

From the graphs (Appendixes 1 *a–l*) you can see at least that the financial position of the big Central Banks does not bar the way to economic recovery. The gold reserves which in the graphs of the countries with depreciated currencies still appear at their old parity are—leaving aside for the moment the catastrophic development in Germany—generally bigger than those of the years before the crisis. The note circulation, too, is generally higher than one might expect. Above all, the exceptionally great increase of deposits proves best that there is sufficient money that is only waiting to be productively employed.

The rates of interest for money on short-term are abnormally low in all creditor countries, and show a tendency to drop still farther. The rates on the capital market, however, have fallen comparatively little, but the movement is not uniform, though there is also a prevailing tendency to drop. It is impossible to reconcile the tenacity with which the rate of interest on long-term loans, notwithstanding the severe crisis in most countries, still clings to a high level, with economic experience or scientific theory. After all, the fundamental reason is merely that politics have not yet created that atmosphere of international confidence which is indispensable for long-term investments. Capitalists could never be persuaded of the durability of the so-called Treaty of Versailles, and from the very beginning held the encirclement of a defenceless state in the heart of Europe by highly armed neighbours to be a constant menace to the world's peace. That produces its effect of course not only on the international, but also on the national, readiness to make investments.

Imports and exports everywhere show an enormous shrinkage compared with before the crisis. Even the latest development is predominantly retrogressive. The comparatively favourable picture of Great Britain cannot deceive us regarding this fact, as it must be taken into account that British statistics show trade within the Empire as foreign trade, whereas in reality—at least since Ottawa—it must be considered as home trade. This empire trade, however, includes a very considerable part of British foreign trade (Appendix 2).

The other economic figures do not present a uniform picture. Since the middle of 1933 a favourable development of the economic situation is to be seen, which, however, is weakened nearly everywhere by relapses, a sign that the return to prosperity cannot develop properly. Correspondingly the general movement of prices still shows in a number of cases a slight tendency to drop.

Further characteristics of the general situation are, on the one hand, the complete break-down of international credit (Appendix 7), the constant shrinkage of world trade (Appendix 4), and the gigantic extent of the private hoarding of gold; on the other hand, the decrease of universal unemployment (Appendix 5), the slightly diminishing pressure exercised by excessive world supplies (Appendix 6), and the increasing world production of gold (Appendix 3).

The fact that the favourable development of the economic situation in the various countries affected has not been steady, but was interrupted by relapses, results from the fact that it was mainly started by artificial measures. Measures of this kind, in so far as they can be reconciled with a sound economic policy, are, in view of the severity of the crisis, not only justified but often absolutely indispensable. Their effect, however, is always limited to the country in question. They thus create an indispensable condition for arriving at a more prosperous international situation. Real prosperity, however, can only develop if prosperous conditions in the different countries are united by means of international trade. This unifying element of international trade is still completely inoperative at present. It must fail to act, because international credit, as I shall explain later in detail, is at present prevented from fulfilling its functions. For the evolution of international trade the development of the prices of raw materials is of decisive importance. The slump in the prices of raw materials started the international crisis. It began in the years 1928–9 and had already assumed considerable proportions in 1930 (Appendix 8). Accordingly the purely raw material producing countries were already affected in 1929 to a large extent by the crisis, whereas it did not attain full force in the European manufacturing countries—Germany is an exceptional case—until 1930. It is hardly necessary to mention that the break-down of the international credit machinery in 1931 then depressed the prices for raw materials to a record low level. The catastrophic consequences of this slump are equally well known. The producers of raw materials had only one remedy at their disposal, namely, restriction of production. But particularly in the case of agricultural produce it is very difficult to effect a restriction of production owing to the scattered position of the producers; besides, such measures require considerable time to take effect. Nevertheless, under the pressure of necessity this measure has been adopted and really resulted in a certain measure of success. A year or two ago the drop in prices came to a standstill. Very much more has not been accomplished. Again and again the prices for raw materials tend to rise, but the development always fails (Appendix 9). This limited success could be foreseen, for it is simply impossible even to overcome a price slump of such dimensions solely from the side of the producers. It is also contrary to reason and ethics that, on the one hand, the cultivation of wheat is being restricted or coffee thrown into the sea, whereas, on the other hand, millions of human beings are scarcely able to satisfy their most urgent needs. But even for the producers of raw materials the situation is untenable in the long run. To-day's prices are not sufficient to allow of profitable production and costs cannot be reduced any further. So to-day farm and plantation work in nearly all oversea countries is just barely maintained only by artificial state measures, subsidies, price control, the elimination of foreign competition, &c. This state of affairs cannot be borne much longer. There can be no real turn for the better until there is an improvement on the side of demand. Demand, however, is just as much lacking in the fifth year of the crisis as in the first year. The low level of international trade provides appalling proof of this.

Disorder in currencies is generally held responsible for the paralysation of international trade. While this explanation is not erroneous, it is, nevertheless, superficial. At the beginning of the crisis the currencies not attached to the gold standard were unstable. The danger of incalculable losses obliged the merchant to restrict himself to absolutely indispensable transactions. Meanwhile even the depreciated currencies have attained comparative stability. That ought to have had a favourable effect on international trade, even without legal stabilization, if there did not exist two other reasons which produce the opposite effect. In the first place, the fact that to-day two-thirds of all currencies have arrived at a lower basis (Appendix 10) gives rise to the fear that the countries which have adhered to the old gold standard will also be obliged to devaluate sooner or later. Still more important is the fact that the depreciation of the currencies renders the equalization of the trade balances between gold countries and countries with depreciated currencies increasingly difficult. Devaluation means for the countries with a devalued currency difficulties as regards imports and improved conditions as regards exports, and for the gold countries inversely, higher imports but more difficult conditions for exports. It is evident that the gold countries will not consent to continual import-dumping but will retaliate with trade restrictions. It is equally evident that the export possibilities of the gold countries are very severely prejudiced by the advantages enjoyed by the others with depreciated currency (Appendix 11). As international trade is always based on reciprocity, it is bound to shrink under these circumstances. Up to this point the attributing of the world crisis to currency disorder cannot be contradicted. That it nevertheless does not reach the core of the matter is seen at once if we proceed to reason logically. For this would lead us inevitably to the conclusion that the world crisis would be overcome as soon as the countries still on a gold basis would devaluate too. This conclusion has actually been frequently drawn by writers and in the press, but it is most naïve, as is shown by the simple consideration that such a measure would lead back to approximately the same point whence the depreciating of currencies started in 1931. Whether the yardstick to be applied in international relations is longer or shorter cannot possibly play a decisive part as long as the alterations of the length of the yardsticks are approximately the same. The problem of the world crisis cannot be solved in this way. The discussion about the question of whether the currencies ought to be stabilized first and then the commercial obstacles removed or whether the reverse procedure should be adopted is therefore completely superfluous. The currencies can only be set in order and the commercial obstacles can only be gradually removed after the disappearance of the disturbing factor responsible for both phenomena. This disturbing factor is the political indebtedness caused by the World War; in 1931 it caused the German credit crisis and the abandonment of the gold standard by Great Britain, and has in general led to an immense and almost hopeless aggravation of the world crisis.

Before the World War international indebtedness (Appendix 12) did not constitute a problem. It had an economic basis and had developed organically within the natural scope of economic laws. These credits were mostly given by the industrial countries of western and central Europe with abundant capital at their disposal to the eastern European and oversea countries with small capital resources of their own. The latter paid interest and redeemed the capital slowly by means of deliveries of raw materials. The trade balances of the debtor countries were therefore favourable and those of the creditor countries unfavourable; or, to put it in another way, the creditor countries received their interest and sinking-fund claims in the form of raw materials. This interplay of the countries participating in world trade was the consequence of organic developments, and automatically prevented more serious friction in the economic field. Great Britain, for instance, requires American cotton, Australian wool, Brazilian coffee, and so on; and the United States, Australia, and Brazil generally encountered no difficulty in paying by means of such raw materials. Political payments without economic equivalent did not exist. Since the whole international credit system had grown in a natural way, the mutual credit relations were bound to develop organically as far as their relative volume was concerned. The basis of world trade relations consisted in the exchange of raw materials from oversea countries against manufactured goods from Europe. The payment of the interest and sinking-fund sums corresponding to the debit balances of trade of the creditor countries was made possible by the fact that concomitantly with growing prosperity the demand for raw materials increased automatically. The limit of economic capacity to be found in these relations was not surpassed and could not be surpassed. A widely ramified network of long-term commercial treaties solidly supported the play of the economic forces on the world market and facilitated long-term transactions.

Like world trade and world indebtedness, the rates of interest in the different countries had developed along organic lines. In the industrial countries where each new investment met with the brisk competition of already existing investments, rates of interest were low—corresponding to the earning power—and averaged about 4 per cent. (Appendixes 13 and 14). In the undeveloped countries producing raw materials, the rates of interest were considerably higher, and this was possible because the exploitation of raw materials generally yields much higher profits than the manufacture of goods.

This organically constructed mechanism of world trade was destroyed by the World War. The present situation may be summarized as follows: in the United States the industrialization of the country which had already begun in pre-War times was completed during the World War with an abnormal rapidity. Furthermore, the United States has raised its customs barriers to an almost prohibitive degree. It has therefore, to a large extent, ceased to buy European manufactured goods. On the other hand, notwithstanding its increased home consumption, it continues to be the largest raw material supplier of the world, having increased its agricultural and other primary production considerably by means of credits and modern technique. On the other hand, it has not only paid back its whole pre-War indebtedness, but also become the creditor of the whole world. In Europe, France has created for herself a considerably stronger industrial position by annexing the Lorraine ore deposits, the Alsatian textile industry, and so on. Great Britain secured the lion's share of the German colonies, the German commercial fleet, &c., and has thus improved her position on the world market. The larger neutral countries obtained the advantage of a considerable increase of their capital resources. The losses were almost exclusively borne by Germany, regarding which I shall have more to say later on. In spite of the enormous weakening of her raw-material basis, Germany is at present internationally indebted to about the same extent as she was formerly a creditor. Finally, as far as south-eastern Europe is concerned, the break-up of the Austria-Hungary Monarchy—and, partly, an expensive armament policy—has created a situation that is almost hopeless from the economic point of view. The trade balances of the different countries have been unable to adapt themselves adequately to those vast modifications which took place suddenly and for non-economic reasons (Appendix 15). In particular, the United States still has the favourable trade balance it had before as a debtor country. As regards rates of interest, we also see that Germany alone had to pay for the War. Germany's rates of interest are far above those of all other industrial countries (Appendixes 16 and 17). Such abnormally high rates of interest in a highly industrialized country are an economic contradiction.

Since 1918 business has been strangled by politics. The Versailles dictate had, as Adolf Hitler concisely but exhaustively expressed it, the tendency to deprive Germany of her possibilities of livelihood. Until the coming into force of the Dawes Plan, Germany was bled to the extent of 42 billions of goldmarks, especially in the form of the transfer of property, to say nothing of the enormous losses entailed by the cession of territory (Appendix 18). The country which had been drained to such an extent was then forced to make yearly reparation payments at the rate of 2½ billion goldmarks, which sum was reduced to 2 billions by the New Plan. These immense sums, corresponding to about half of all the receipts from taxation of the Reich and its Federal States and municipalities in 1913, have been raised by Germany, but Germany was unable to transfer them. The transfer was made possible only by the continuous raising of foreign credits, which method was in direct contradiction to the intentions of the Dawes Plan. Since 1924 the governments of the reparation creditors have cashed their reparation claims in the following way: foreign banks, merchants, and private investors have given credits in foreign currencies to certain German enterprises; that is to say, these enterprises have only received the corresponding value in reichsmarks, whereas the foreign currencies flowed temporarily into the Reichsbank. On the other hand, the German Government, by means of taxation, &c., has caused the reichsmark value of reparation payments to be paid by German trade and industry as a whole; it then soon purchased the equivalent foreign currencies from the Reichsbank and transferred them to the reparation countries. The Layton Report of 1931 states unmistakably, on the basis of the figures of the German balance of payments, that in the years since the Dawes Plan Germany has not obtained any surplus in her trade and service balance from which reparations could have been transferred. The Allied Governments have therefore received the reparations which accrued until the end of 1930, amounting to 10·3 billions, in reality from their own citizens or from those of neutral countries. To this sum of 10·3 billions of reichsmarks given in the Layton Report must be added, from the standpoint of German foreign debt, about another 5 billions of reichsmarks, including reparation payments since the beginning of 1931 and the interest burden on reparation services performed with borrowed money. Germany has thus got into debt for more than 15 billions of reichsmarks with foreign private capitalists for reparation services alone. This system, as preposterous as it is unwarrantable, and against which the Reichsbank has protested often enough to the Reparations Agent as well as to the public at home and abroad, was bound to break down as soon as foreign countries ceased to grant further credits.

It remains difficult to understand that the responsible financial authorities in foreign countries and also the Transfer Committee of the Reparations Agent did not realize the enormous danger of this glossing over of the reparation problem, which they must have seen owing to the continual warnings of the Reichsbank already long before the break-down in 1931. The behaviour of international finance in 1931 is itself absolutely incomprehensible. If private financing of the reparations by means of international credit machinery had been admitted, then all energy ought at least to have been applied somehow to help this credit machinery over the crisis. If one intends to solve a problem by means of international credit, one cannot suddenly recall, to the extent of billions, the credits granted for this purpose. I admit that the fault for this lies much less with the business men than with the politicians. In 1924 the world considered the Dawes Plan to be the final peace settlement and believed that the road was open for the recovery of international business. Instead of maintaining and strengthening this peaceful atmosphere, the policy of the victorious powers has been to maintain the Versailles system of oppression, changing only the methods of its application.

It ought at least to be honestly admitted that both the mistakes of the politicians and the helplessness of business men are due to foreign countries, and the hopeless attempt to explain the German transfer problem with the assertion that Germany has used the foreign credits wrongly should be abandoned. No doubt regrettable errors have occurred in Germany. However, Germany can claim that she raised her foreign loans under the pressure of the unsuitable reparations system. This argument cannot be adduced by foreign countries; nevertheless, numerous examples of an incorrect credit policy can be given in nearly every country. I need only recall the enormous credit expansion in the United States, Kreuger's gigantic swindles, the general wave of wage-raising, or the increase of international short-term indebtedness. However, the national mismanagement of capital need not be looked upon as particularly tragic, as the purging process of the crisis would have put it right again. But internationally there has been mismanagement of capital on a very large scale. Had the world been seriously ready to solve the reparations problem with the aid of credit, it would, first of all, have had to be removed from the sphere of astronomic magnitude and brought within the reality of economic possibilities. Further it would have been necessary—and that is the essential point in this respect—to direct international credit not to Germany, but towards the undeveloped countries of South America, Asia, Africa, &c. Foreign capital—apart from relatively small amounts required for the strengthening of the Central Bank's position and for the rebuilding of her foreign trade machinery—was of no service to Germany. If she was to pay reparations, she needed buyers for her goods, and these buyers could in the first place be the undeveloped countries, if it was desired to avoid friction in world trade. If foreign credits had been employed in financing machine deliveries to China and the like, then, assuming that the volume was reasonable, one would at the same time have avoided the German transfer problem and furthered world business to a considerable extent.

In any case, the result of the reparations policy on the one hand and of the incorrect investment of the credits on the other was a foreign indebtedness of Germany of over 25 billion reichsmarks[1] at the end of 1930, of which about 15 billions were short-term loans. To-day Germany's foreign indebtedness amounts to about 13·9 billions (Appendix 19); that is, less than the reparations paid since the Dawes Plan together with the interest due. Therefore in the course of about three years Germany has repaid 11 billions, or more than her entire non-political indebtedness. This, however, includes (at present only on paper) the reduction of 4 billions caused by the depreciation of foreign currencies. The actual repayment of over 7 billions was made possible:

1. by completely sacrificing the Reichsbank's gold and exchange reserve amounting to about 3 billions (Appendix 20);
2. by liquidating all foreign claims, in any way realizable, and other foreign property of German enterprises and private persons still available or reconstructed;
3. by rigorous restriction of imports (Appendix 21) and, simultaneously, by forcing exports to the utmost;
4. by a deflationary policy which the Basle experts recognized as 'unparalleled' (Appendix 22).

The results were accomplished:

1. notwithstanding the fact that the German home rates of interest

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[1] Credits only, without taking into account foreign capital investment in Germany.

were always very excessive—seen from an international point of view—in consequence of the losses of capital during and after the War (Appendixes 16 and 17);

2. notwithstanding the fact that entire spheres of production, above all agriculture, had become hopelessly unremunerative;
3. notwithstanding the fact that the number of unemployed rose to one-third of all those capable of working (Appendix 23);
4. notwithstanding the fact that almost all foreign countries ruthlessly closed their doors to German exports (Appendix 24);
5. notwithstanding the fact that the currency depreciation of two-thirds of the whole world and to the extent of from 40 to 60 per cent. of the original parity (Appendix 10) severely prejudiced the capacity of German goods to compete;
6. notwithstanding the fact that the boycott movement caused a further decline in exports;
7. notwithstanding the fact that the burden of foreign indebtedness has increased owing to the slump in prices to a far greater extent than the paper profit from the currency depreciation (Appendix 25).

To-day Germany's transfer capacity is completely exhausted. Germany has fully repaid her commercial debts at enormous sacrifice. She can no longer meet from her own resources the reparations which to-day, unfortunately, are no longer due to the governments, but to trustful private holders.

The problem of German foreign debts signifies far more than the difficulties experienced in the history of finance of the past. It is not only a matter between the German debtors and the foreign creditors, but affects the whole of world business. The peculiarity of the German problem is the fact that every single debtor meets his engagements in reichsmarks, whereas German business, as a whole, is not in a position to transfer these amounts in foreign currency. The development of the world crisis proves that the German problem is a world problem. Shortly before the outbreak of the German credit crisis during the summer of 1931 even a scholar of standing like Irving Fisher predicted an early decline of the crisis. The tremendous intensification of the world crisis which followed instead has been caused by the recall of foreign funds from Germany and the breakdown of the international credit and currency structure this caused. A further proof are the foreign trade barriers which clearly show that the world business was unable or did not wish to absorb German exports to such a degree as the payment of interest and redemption of the German indebtedness would have necessitated. It is this impossibility, which the Basle experts expressly recognized (Appendix 22), that constitutes the crux of the German debt problem. No doubt exists anywhere in the world to-day that foreign debts can only be redeemed and interest paid on them in the form of goods and services. Germany has always done her utmost to increase her exports; but in fighting against currency depreciation amounting to from 40 to 60 per cent. or against quotas, success could not be attained. Under such circumstances it is purposeless and senseless to wish to enforce payment by means of some kind of pressure on Germany. Such pressure can only cause great damage. These means of pressure not only hurt German business but all other states participating in world business, for a country as important as Germany cannot simply be struck out of world business without causing the severest reactions in all other countries interested in world trade. Exporters in all countries will still remember what Russia's dropping out of the world business meant at the time. Yet Russia's part in world trade during the last pre-War year amounted only to 3·9 per cent., whereas Germany's part ranged between 9 and 11 per cent. Among the fifteen largest exporting countries in the world (Appendix 26) there were five who sent more than 12 per cent. and a further five who sent more than 8 per cent. of their exports to Germany during 1928, the last boom year. These figures show that the overcoming of the world crisis is very improbable without placing Germany's foreign indebtedness on a sound basis.

Such a process, on the other hand, offers a guarantee for the recovery of foreign trade and thereby for the end of the world crisis, for the remaining world's indebtedness is no real danger. The so-called inter-allied debts can be disregarded, for the service on them is in practice no longer paid, and this, it is interesting to note, on the plea that it is impossible to carry through the transfer, a contention which is always denied in Germany's case. The oversea countries have always been indebted, and possess in their sources of raw materials the natural basis for the debt service, provided enough time is allowed for meeting it. In their case the overstrain in comparison to a normal debt-level has been partly removed or at least greatly relieved during the last 12 months by conversions, reduction of the rate of interest, and so on. The debts of the south-eastern European countries have been reorganized to a lesser degree, but they are on the whole much less than Germany's foreign debts, and, moreover, these countries, partly for political reasons and partly in consequence of the relative smallness of the debts, have met with great consideration at the hands of their creditors.

That the sound settlement of indebtedness also makes it possible to restore stable currencies and to drop trade barriers has already been stressed.

People in foreign countries in general reproach Germany with having done nothing or with not having contributed enough towards solving the problem of foreign indebtedness. The assertion that a central bank policy specializing in the 'classical theory' can render every transfer possible by corresponding pressure on the price-level can be easily disproved. The classical theory functioned in pre-War times as the difficulties which had to be overcome then were of modest dimensions in comparison with those of the present time. This is clearly proved by the relatively small fluctuations of the price indexes, even in times of crisis (Appendix 27) and by the considerable stability of the net balance of trade (Appendix 28). The economic disturbances were slight because the international pre-War indebtedness had a natural, i.e. an economic, origin and it therefore, as already shown, remained more or less automatically within a sound limit. Collection and transfer settle themselves in general, thanks to the productiveness of the credit in such a system which is balanced in itself. The expression 'gold automechanism' itself shows that the natural play of the economic forces provided the basis for all theories of classical national economy. But if the natural course of business is forcibly interrupted, as happened to the largest possible extent owing to the one-sided political bullion payments of post-War times, the rules of classical theory fail. But classical theory also fails when intercourse between the nations is gagged by state measures. In times of extreme trade restrictions and currency manipulations it loses its meaning. He who wishes to re-establish the classical theory to-day must first create normal conditions in world trade, and that again is not possible without doing away with political indebtedness.

The failure of the classical theory has been proved in practice in the course of the world crisis. In the years 1931–2 Germany tried in fact to lower her price-level to such an extent and thereby increased her exports so much that the highest possible amount of transfer could be attained. But it was overlooked that the standard of living and the economic structure of a nation cannot support such arbitrary interference. The consequences of that policy were the typical symptoms of a deflation crisis of which the existence had long been recognized and thoroughly proved by foreign national economists as well. Owing to the slump many enterprises and even whole branches of industry became unremunerative and were ruined, and thereby deprived other enterprises of their outlet and hence of their possibility of living, until finally gigantic unemployment figures faced the Government with the inexorable alternative of stimulating trade or facing chaos. Abroad, the German deflation policy was confronted by the unfortunate fact that the economic common sense of the world developed proportionately with the growth of the world crisis, but unfortunately in the opposite direction. Foreign countries had no intention of absorbing cheap German goods; on the contrary, foreign trade restriction increased to the same, if not to a higher, extent as the cheapening of German exports; the German transfer capacity decreased instead of increased. Under such conditions, it is—to put it mildly—illogical for foreign countries now to recommend the Reichsbank to adopt a fresh deflation policy.

The proposal of a devaluation policy is just as misleading. I have already said that such a policy would, on the whole, lead back almost to the point at which the international credit crisis broke out. Especially for Germany there still remain a number of other objections. Germany is to a relatively great degree dependent on the import of foreign raw materials. A devaluation would make them considerably dearer. The consequences would be, firstly, the increase of the cost of living which the wages would have to follow, and, further, an increase of the cost of the proportion of raw materials in our export goods which, in consideration of the finishing character of our industry, would very often absorb a considerable part of the gain on devaluation. Furthermore, devaluation would at first mean a decrease of the foreign currency received for the individual exports, and it is questionable whether this decrease could be fully balanced at all by means of the hoped-for increase of the quantities exported. All the more so, as unfortunately it may be assumed that the world, even now, is not willing to abandon its ominous policy of defensive measures. The psychological dangers of every recognizable currency deterioration, which are especially dangerous for Germany, need hardly be mentioned. The decisive point is finally the impairing of the position of our foreign indebtedness that would be caused by devaluation. The English example so often quoted is misleading, for England is indebted in her own currency. She could therefore relieve the burden of her foreign debts by decreasing the value of the pound and that even without suffering an equally great loss on her foreign claims, as these, for the most part, are participations and therefore are not substantially affected by the devaluation of the pound. Our debts, on the contrary, are for the most part in foreign currency and would, therefore, increase in the ratio of the mark devaluation. The difficulties of the transfer problem would, therefore, not be decreased but increased by devaluation.

Finally, may I briefly mention those proposals which aim at a permanent solution of the debt problem by means of an international clearing system. On paper all problems can be solved by this means; in practice, unfortunately, Germany can no more buy the necessary cotton in Switzerland than the United States is likely to have a great demand for German motor-cars. The unavoidable consequence of a clearing of the balances of payment of the different countries, carried through consistently, would cause a complete disorganization of the world's foreign trade, which is clearly shown by Germany's high imports from her principal creditor country, the United States (Appendix 29). Besides this it would mean the wilful destruction of the expensive foreign trade machinery, built up laboriously in the course of decades. But this idea becomes still more absurd if one wishes to clear not the balances of payments but only the balances of trade; in this case one infallibly attains, without touching the debt problem at all, a permanent shrinkage of world trade because all countries would tend to revert to the smallest volume of their imports. Experience shows more and more that clearing is submerging the export houses in a flood of petitions, grants, returns, claims, &c. In consequence of this it is generally realized to-day that any kind of clearing represents no solution of the problem, but only a makeshift which must disappear again as soon as possible.

During the whole crisis Germany has always emphasized her intention to pay and proved it in practice. At the same time foreign countries have more and more refused to accept German goods. As the debtor can only pay if the creditor accepts the payment, it stands to reason that the German debt problem can only be solved internationally. In spite of all conferences, this solution has not been found up to now. Neither have export possibilities been found for Germany nor have her foreign debts been reduced to a bearable extent. Only small concessions have been wrested by the course of events which is constantly becoming more serious, and, otherwise, one had hoped for a better future. However, the future will not improve of itself, but must inevitably become still worse. A moment's reflection shows this. Enormous credits have been invested since 1924 in the production of oversea raw materials. In order to provide markets for the increased quantity of materials produced by this process, credits have at the same time been granted to finance the demand. As, of course, the greatest demand came from Germany, impoverished during and after the War, the credits in general found their way to Germany. The American loans were accompanied by a large flow of goods (Appendix 30), thereby forming an essential factor for the prosperity of the United States and of the whole world. This development broke down with the credit crisis for one reason, because every credit excess must some day be paid for and principally because Germany was not in a position permanently to resist the double pressure of reparations and excessive rates of interest. It is simply impossible for any country to economize and transfer abroad one-sided payments of two billion reichsmarks year after year. It is equally impossible for an industrial country whose economic structure is based on rates of interest of from 4 to 5 per cent., to bear rates from 6 to 8 per cent. for a period of ten years. At the beginning of this crisis the greatest possible mistake was made: the German demand was killed by enormous credit recalls and no one worried how this would influence the outlet of the creditor countries, and, thereby, the world prices of raw materials. It may be comprehensible that this threatening consequence was overlooked under the shock of the suddenly arising world crisis, and, after all, a certain purging crisis was inevitable. But it is not to be understood why this method of throttling the demand is still being continued to-day. The effect of national deflation is clearly realized to-day. We know that it starts in some single branches of production—generally in agriculture which is working with the smallest margin of profit—constantly encroaching upon further branches with merciless consequences and threatening in the end to choke the whole economic system. On the other hand, we do not fully realize the effects of the international deflation process, although the disastrous development of all the figures concerning world production, world trade, world unemployment, &c., since 1931 furnishes an appalling object lesson. The latest development in Germany especially shows only too clearly where a policy of procrastination leads to. The flow of foreign currency to Germany is not even sufficient to maintain the already very greatly restricted amount of imports. This forces Germany to accelerate with all possible energy the exploitation of her domestic sources of raw materials (crude oil, iron ores, copper, &c.), to work up old and scrap materials (scrap and textile waste), to force the utilization of substitutes (synthetic petrol, aluminium, artificial yarn), &c. It is useless to reproach us that Germany is thereby harming herself. We know it only too well, and we do it only because there is no other way open to us, because, without foreign currency, we can buy no foreign goods. World business cannot be indifferent to such a development, for the quantities which Germany imported in normal times were far too great (Appendix 31). Most of the raw-material markets have already reacted of late to the German import restrictions and will be forced to do so still more. This, however, is by no means the end of the development. The falling off of outlets for foreign producers and exporters cannot remain without consequences for foreign economic systems. International deflation is just as contagious as national deflation. Taking further into account that the currency problem cannot be solved without the debt problem, economic dangers are increasing to an unmeasurable extent. To-day a number of countries with gold currency are making the little hopeful but very dangerous experiment of attempting to make good for the competition of the countries with depreciated currencies by a national deflation policy. But by these methods world trade must decline still more, while international deflation must be furthered.

However, it would be fundamentally wrong to regard the international debt problem only from an economic point of view. In the past the world crisis has already lead to an impoverishment of large classes of the population in all countries. Such a development is bound to have serious social consequences and, in fact, the consequences are already showing themselves to such an extent that they can no longer be overlooked. In Germany, the country that was first and hardest hit, the danger of bolshevization was warded off at the last moment by National Socialism. In many foreign countries there is still a dangerous ferment (Appendix 32). Hardest hit by the price slump in agricultural produce and raw materials, many farmers have been seized with despair, which must become all the more dangerous the longer the price slump in raw materials prevails. The unrest has also spread to the industrial workers, especially in those countries in which a deflation policy has been, or is about to be, adopted. The farmer riots in the United States and the restless mood of the French peasantry, the strike wave far above the normal in the United States, and the sanguinary unemployment riots in Amsterdam are serious warning signals. If the free-money movement in Switzerland is already represented by an official party, if France is upset again and again by financial debates and by waves of capital flight, and if in England communistic propaganda cells are working systematically, then all this proves that even in the richest countries difficulties are arising which must not be underrated in the long run. But even disturbances of a purely or predominantly political character should not be judged solely from a political point of view. These recent phenomena cannot be understood unless we keep in mind the dark background of general economic distress on which they appear. The business man, whatever his country may be, cannot in considering them avoid the question why shocks of such an extent and with such a universal repercussion were inconceivable in pre-War times. Social enemies, criminals, and utopians were to be found at all times in all countries. They can, however, only appear on the surface if economic distress gives them an opening. The reason for the whole world's unrest to-day is simply that the world crisis is threatening the standard of living everywhere. The standard of living cannot be kept down under pressure for ever without those thereby hit rising in revolt. Abroad, in many cases, it was not believed that Germany was seriously threatened by Communism. Should the crisis continue any longer some countries would change their point of view from their own experience. Bolshevism finds to-day in the shrinkage of world business a more favourable soil than even in the first post-War years. In view of such a serious international situation the question is justified whether it would serve the purposes of world business in general or of the foreign creditors in particular to add economic pressure to the political pressure of the first post-War years. As far as we Germans are concerned, they can take away our faith in the world's common sense and conscience, but what they cannot do is to kill our faith in ourselves.

The world is thus confronted by the alternative of either—

> remaining passive in the question of debts, of writing off Germany not only as a buyer but also as a debtor, and of putting back world business by several decades,

or of—

> pushing the lever of credit policy to the other side, by cooperating in solving the German transfer problem and clearing the way for international economic recovery.

Germany's attitude is absolutely clear. Germany cannot renounce her claim that her trade and industry and at the same time world trade and industry should at last be freed from the paralysing effects of unilateral political pressure; for, as the nation that has been hardest hit, she cannot lend a hand so that the pause in the development of economic and cultural progress in the world dating from Versailles may be prolonged for years or decades. On the other hand, Germany admits that the problem of debts has become more complicated by private creditors taking the place of the reparations powers. She is well aware that German debtors have given their signatures to private creditors. She acknowledges without any reserve the binding force of these signatures. She is prepared to pay all she can and all that foreign countries are willing and able to receive in the form of goods or services at reasonable prices.

All these principles have been upheld by Germany from the very start and will be further upheld by her. But that is not sufficient. Theoretically there would be two possibilities for a solution:

1. to free German goods from all restrictions, or
2. to cancel German debts.

Neither way is feasible in practice. The first would be rendered impossible by the opposition of foreign industries, and the second by the resistance of foreign investors. The only practicable way, therefore, must lie in the middle, whereby the governments of the creditor countries would agree to admit more German goods and the creditors consent to a reduction of their claims. If willingness is lacking on the one hand, this must necessarily be made up for by the other, for Germany can only pay in goods or not at all. Both claims are absolutely justified even from the point of view of foreign countries. Foreign governments have to uphold not only the interests of their industrials but also those of their investors. The latter cannot be done, as long as the transfer problem exists, by exerting on Germany pressure which can only be prejudicial, but by permitting an increased import of German goods. But the claim to relief as to the debts is also justified, because the creditors have enjoyed for years such a high rate of interest as never would have been maintained even under comparatively normal circumstances. The rate of interest is necessarily limited by the profit-making possibilities, and these are much lower in a highly industrialized country than those then stipulated for Germany. The Dawes Loan, for instance, still bears interest at the rate of 7 per cent., whereas economically a rate of about 4 per cent. would be justified. Taking this rate of 4 per cent. as a basis, a holder of Dawes Loan bonds would, by June of this year, have already received repayment of 34 per cent. of his capital in the form of excessive interest payments (Appendix 33). Moreover, the quotations of German foreign bonds (Appendix 34) prove that international financial circles are agreed that the then loan agreements can no longer be wholly fulfilled as economic conditions have changed essentially in the meantime.

Such a middle course by itself would have been crowned with success one or two years ago. To-day it is not sufficient. Germany's shortness of foreign currency compels her to restrict imports rigorously. Foreign industries have already adapted themselves too much to the protective measures in the form of duties, &c., which have now been in force for years. The depreciated currencies cannot be restored to par. The failure to make timely arrangements has borne bitter fruits. On the one hand, Germany has been bled to such an extent that, for the moment, she cannot bear even a reduced rate of interest; on the other hand, international markets have shrunk to such an extent that, in order to raise the prices of raw materials, much stronger stimuli will be needed. Only broad-minded and far-reaching measures can pave the way out of this nearly hopeless situation. Germany can only fulfil her debt service if the volume of world trade increases. It is impossible for her to contribute to this increased volume of world trade under the pressure of the international deflation process. There therefore remains no other solution but to grant her a full moratorium of several years to enable her to recover. At the same time the burden of her foreign debt will have to be reduced to a degree that can be borne for a long time to come after the moratorium comes to an end. If these two conditions are secured by an international agreement, the decisive obstacle in the way of a revival of world trade will be removed. The natural result will then be that Germany will obtain those credits for goods which will allow her to exert her normal buying-power on the international markets. Such credits for goods have nothing to do with the misguided international financial policy of the past epoch, because they liquidate themselves automatically in the normal economic way and have always formed an indispensable bridge in the exchange of goods between the nations. When this has been done, Germany, the link now missing, will be again interpolated in the world's chain of demand, and international commerce will again recover its equilibrium. As soon as that has happened, and as soon as the curve of international economic development is once more on the up grade, all other obstacles will be overcome without great difficulty.

It may be hard to realize that to-day much greater sacrifices are needed in order to reverse the helm of world business. But it is equally certain that the sacrifices will become greater, the more time is still allowed to slip by. It is not Germany's fault that the world has in the past again and again postponed the execution of the liberating resolve for international co-operation, for Germany was always ready to contribute everything that lay in her power. Nor is it Germany's fault if the courage for a necessary life-saving action is not yet forthcoming, for Germany's readiness has never changed. But it is Germany's duty to point out, that, by every month lost, her international economic position is inevitably further weakened, the shrinkage of international trade increased, the world crisis prolonged, and recovery made more and more difficult.

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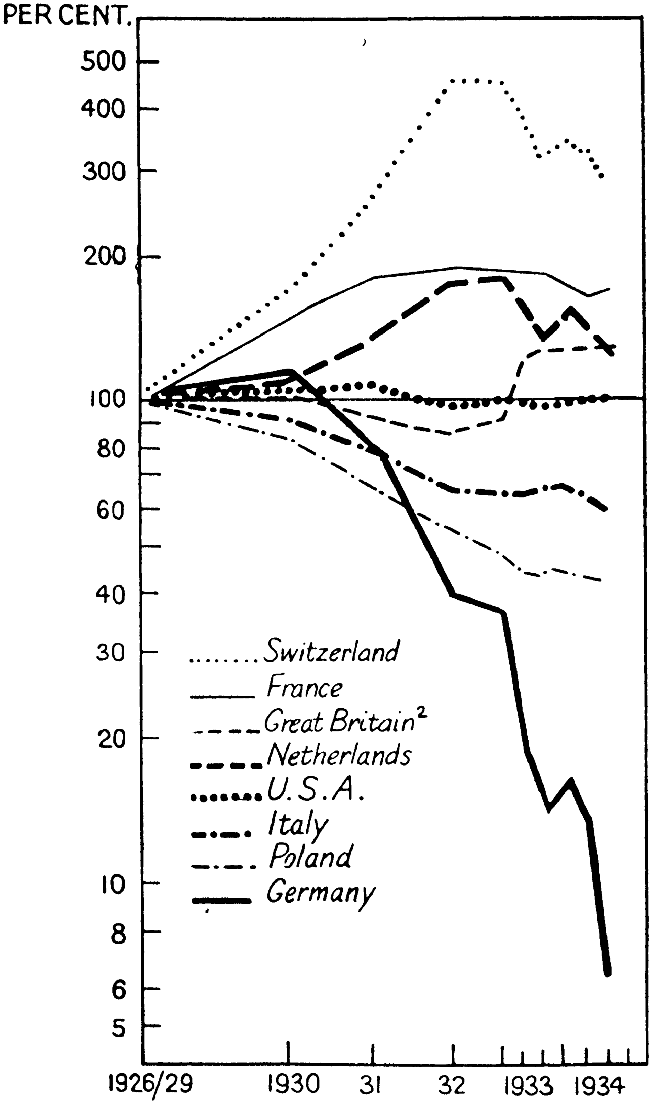
APPENDIX 1 *a*

The International Economic Situation
Gold and Total of Foreign Exchange of Central Banks[1]



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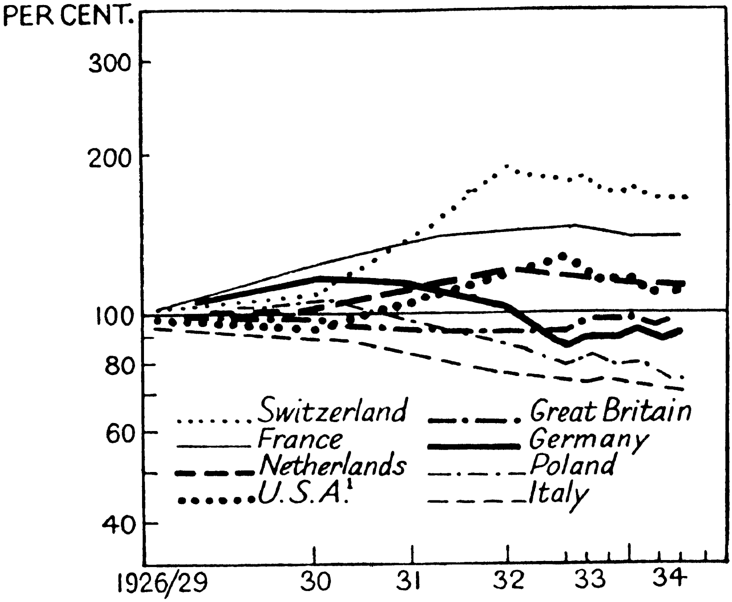
[1] As far as countries with depreciated currencies are concerned, gold at old parity.

[2] Gold only, without Exchange Equalization Fund.

APPENDIX 1 b

The International Economic Situation
Note Circulation



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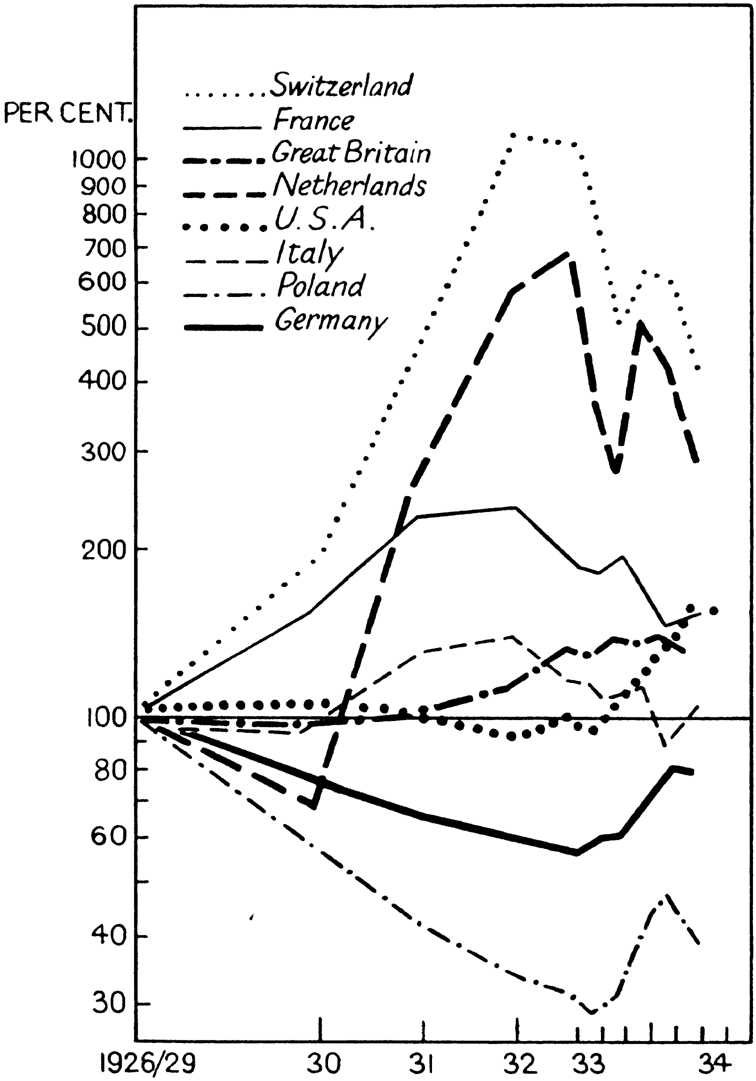
[1] Total of money in circulation.

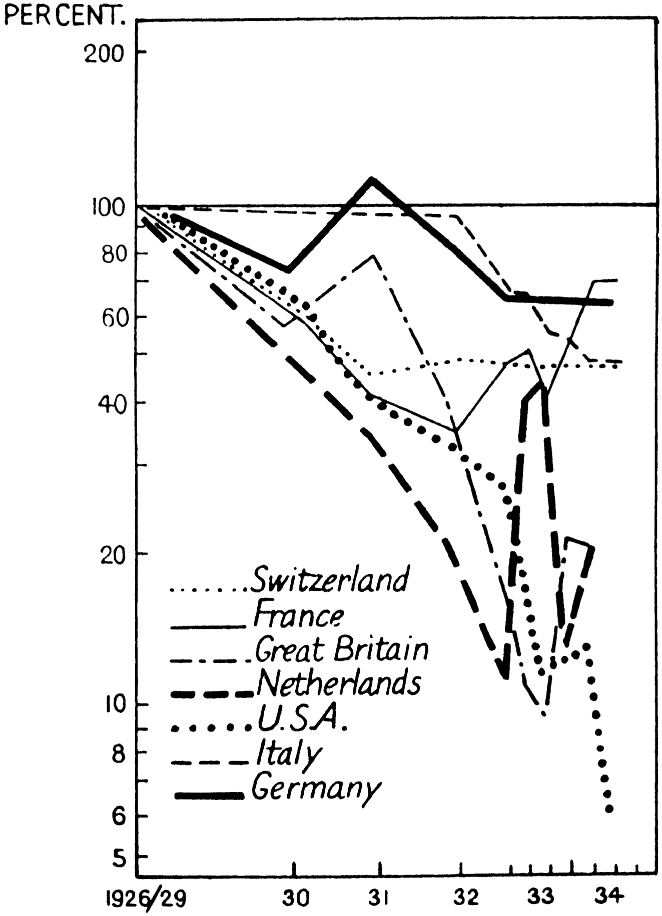
APPENDIX I *c*

The International Economic Situation
Deposits with Central Banks



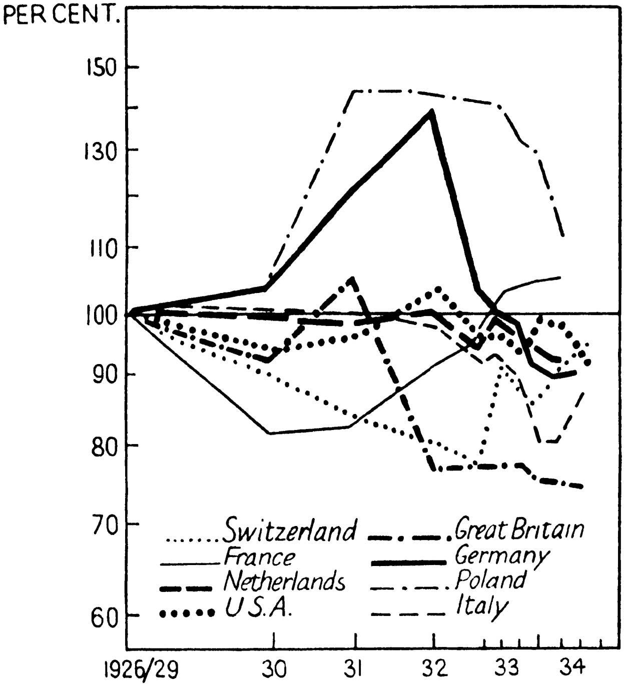
APPENDIX 1 *d*

The International Economic Situation
Rate for Bankers' Bills



APPENDIX 1 *e*

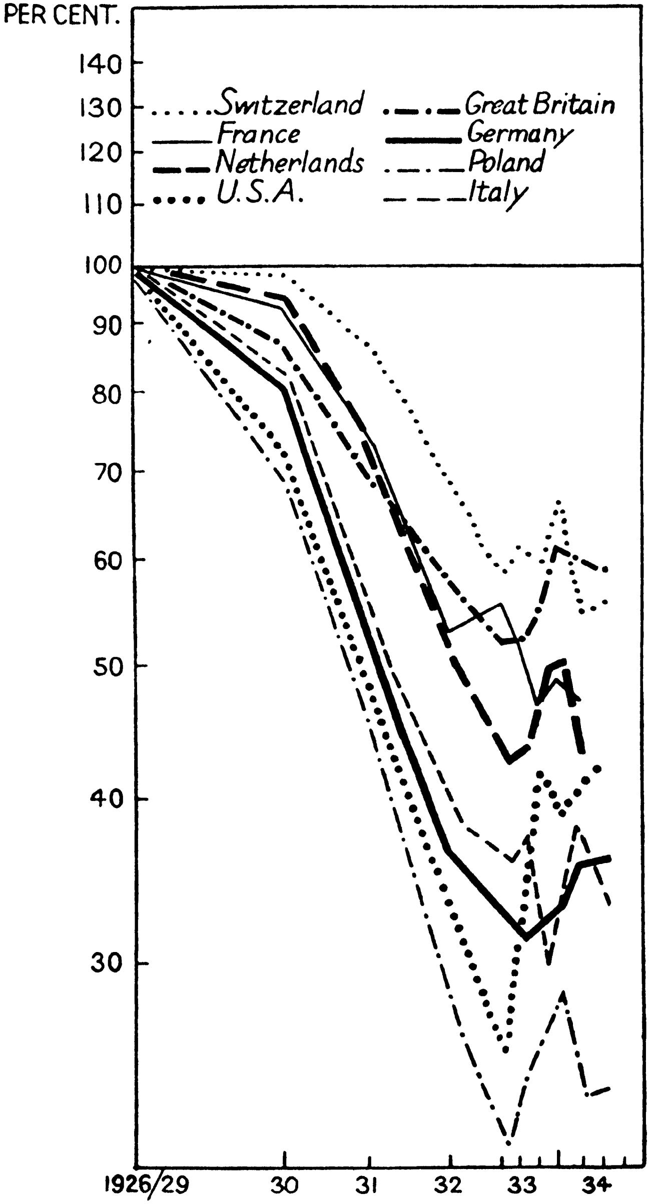
The International Economic Situation
Average Yield of Government Loans



APPENDIX 1*f*

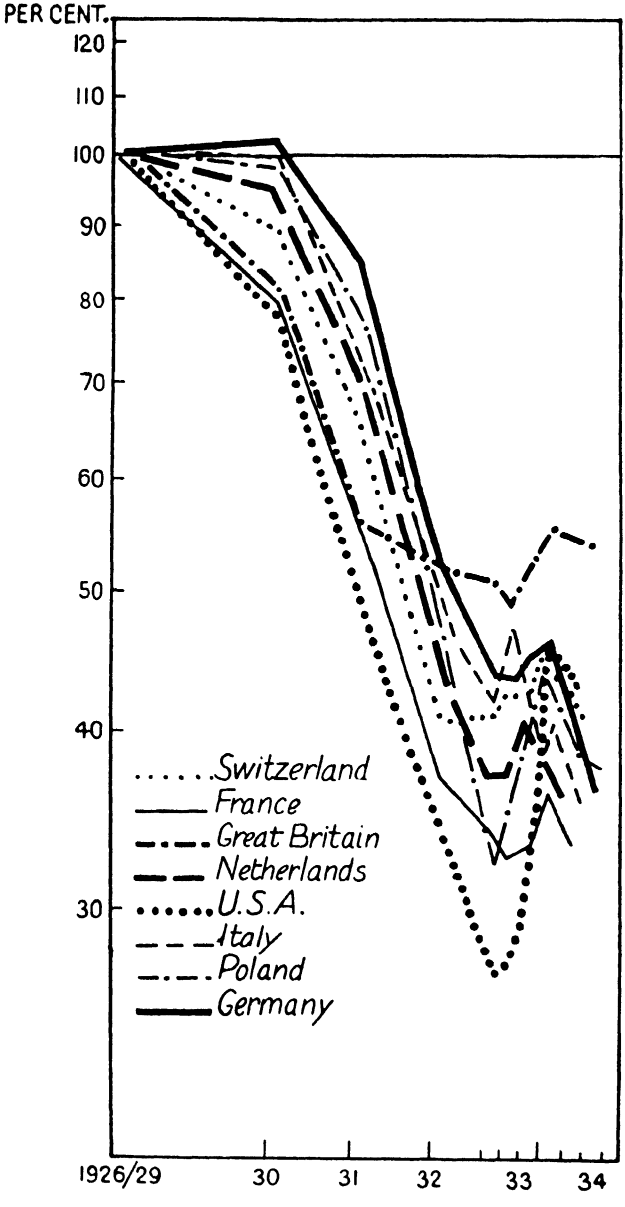
The International Economic Situation

Imports



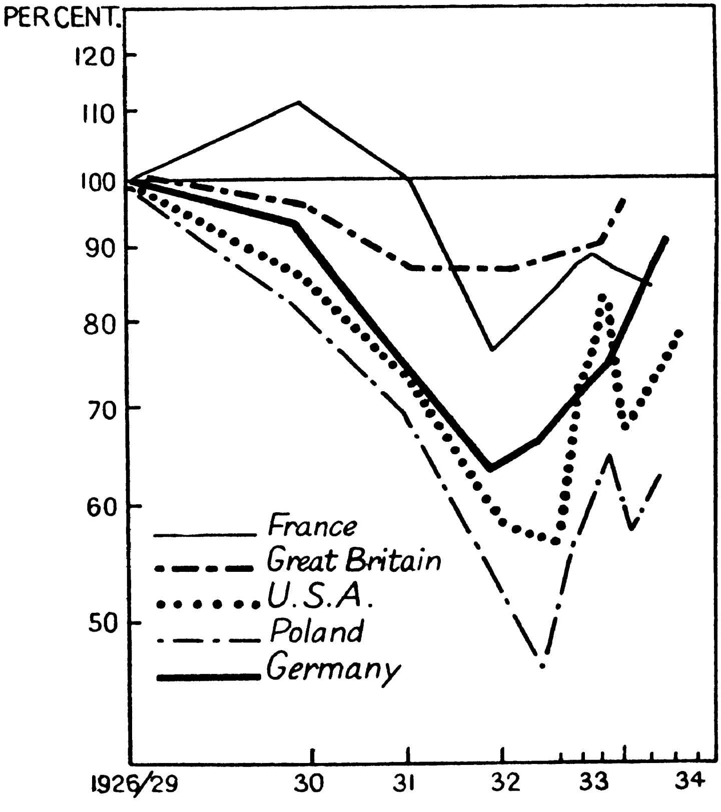
APPENDIX 1 g

The International Economic Situation
Exports



APPENDIX 1 *b*

The International Economic Situation
Index of Production[1]



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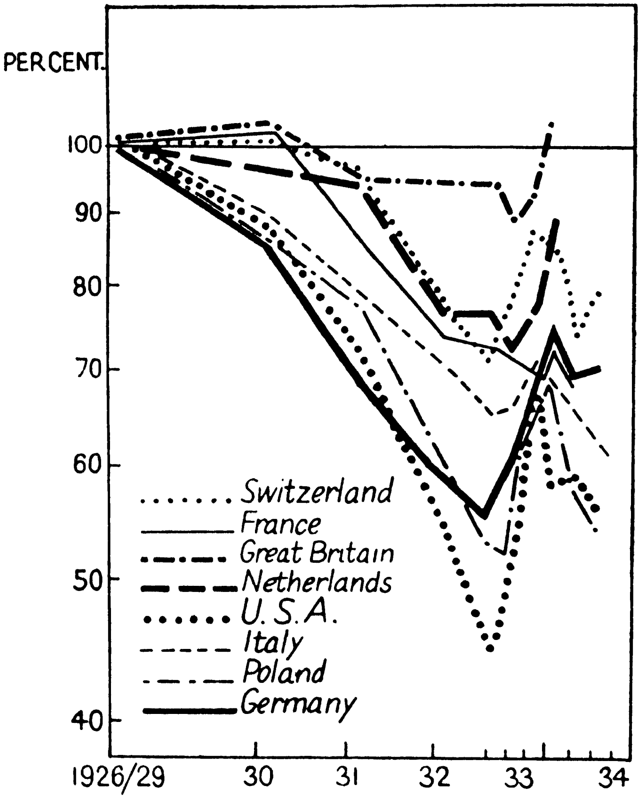
[1] Or other typical figures of production.

APPENDIX 1 *i*

The International Economic Situation
Goods Traffic[1]



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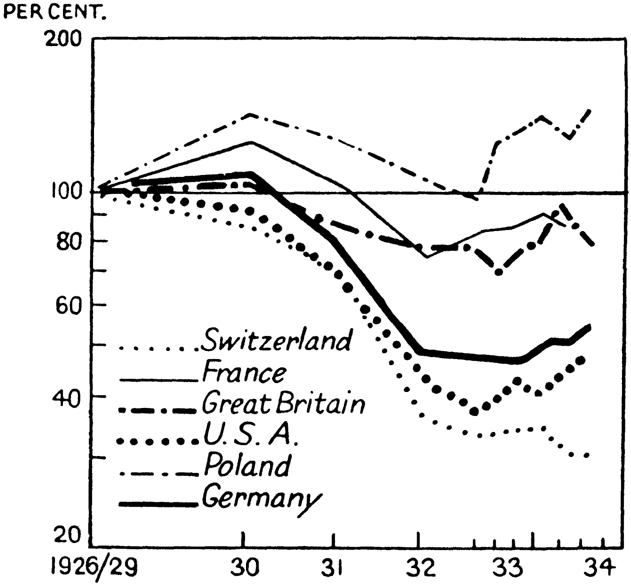
[1] Or railway car loadings.

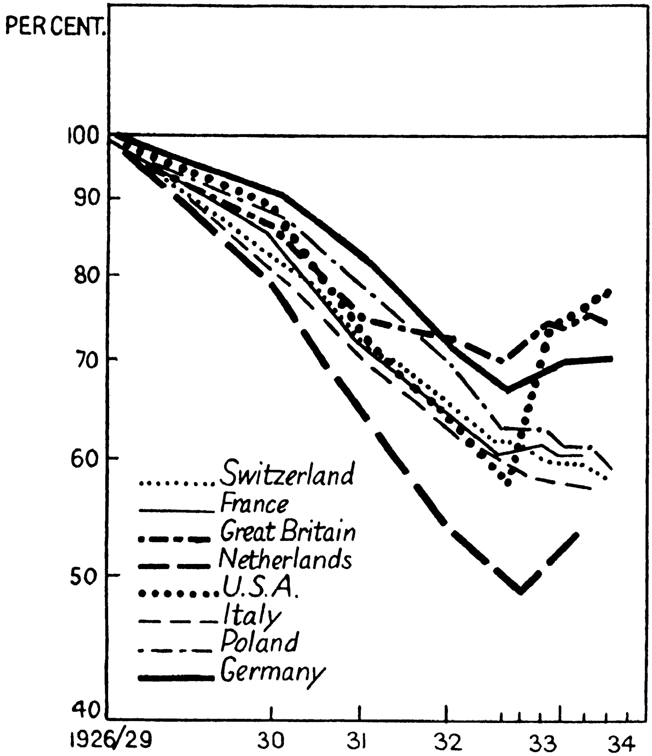
APPENDIX 1 *k*

The International Economic Situation
Clearings



APPENDIX 1 l

The International Economic Situation
Wholesale Commodity Index



APPENDIX 2

Foreign Trade of Great Britain in 1929 and 1933
Empire and Foreign Countries[1]

	1929		*1933*		*1933 as compared with 1929*
	Mill. £	%	*Mill. £*	%	
Imports from:					
British Countries . .	358·9	29·4	249·4	36·9	30·5% decrease
European Gold-Countries .	255·7	20·9	106·3	15·7	58·4% ,,
Other Countries . .	606·2	49·7	320·1	47·4	47·2% ,,
Total of Imports . .	1,220·8	100·0	675·8	100·0	44·7% ,,
Exports to:					
British Countries . .	324·4	44·5	163·5	44·5	49·6% ,,
European Gold-Countries .	138·3	19·0	71·6	19·5	48·2% ,,
Other Countries . .	266·6	36·5	132·3	36·0	50·4% ,,
Total of Exports . .	729·3	100·0	367·4	100·0	49·6% ,,

[1] According to *Accounts relating to Trade and Navigation of the United Kingdom.*

APPENDIX 3

World Gold Production[1]

Year	*In 1,000 oz. fine*	*In millions of Swiss Francs*
1915	22,594	2,420
1923	17,786	1,905
1924	19,050	2,041
1925	19,031	2,039
1926	19,369	2,075
1927	19,446	2,083
1928	19,583	2,098
1929	19,585	2,098
1930	20,750	2,223
1931	22,206	2,379
1932	24,226	2,595
1933	24,720	2,648

[1] *Annual Report of B.I.S.* for 1933–4.

APPENDIX 4

Development of World Trade during the Crisis[1]

Year	*Imports*		*Exports*		*Value of turnover*		*Volume of turnover*[2]	
	1,000 mill. of RM.	%	*1,000 mill. of RM.*	%	*1,000 mill. of RM.*	%	*1,000 mill. of RM.*	%
1929	148	100·0	136	100·0	284	100·0	208	100·0
1930	120	81·1	109	80·1	229	80·6	188	90·4
1931	87	58·8	77	56·6	164	57·7	163	78·4
1932	58	39·2	52	38·2	110	38·7	132	63·5
1933	52	35·1	47	34·5	99	34·9	133	63·9
1st half of 1934	23·4	31·6	20·6	30·3	44·0	31·0	..	..

[1] 52 countries representing 90–5 per cent. of the entire world trade.

[2] The volume of world trade has been computed by eliminating the variation in prices from the figures of value and by taking the average of the wholesale price index figures of the Board of Trade (Great Britain) and of the Bureau of Labor Statistics (U.S.A.). (*Stat. Jahrbuch f. d. Deutsche Reich.*)

APPENDIX 5

Movement of the World Unemployment[1]

in thousands

	1930	*1931*		*1932*		*1933*		*1934*
	Dec.	*March*	*Dec.*	*March*	*Dec.*	*March*	*Dec.*	*March*
World	19,000–20,000	21,000	24,000	25,500	28,000	30,000	23,500–24,000	22,500
Germany	4,384	4,744	5,668	6,034	5,773	5,599	4,059	2,798
Belgium	181	207	293	350	327	383	358	345
France	23	72	177	347	307	350	345	379
Italy	664	735	1,015	1,085	1,167	1,111	1,132	1,057
Netherlands[2]	81	103	147	165	351	342	394	333
Poland	300	373	312	360	220	280	343	388
Great Britain	2,500	2,666	2,671	2,660	2,776	2,821	2,263	2,225
Sweden	83	73	110	99	129	121	110	98
Czechoslovakia	240	340	486	634	747	878	780	790

[1] According to *Wirtschaft und Statistik* and *Bulletin Mensuel de Statistique* (League of Nations).

[2] Up to March 1932 only those unemployed, who have been (voluntarily) insured; from December 1932 total of unemployed registered.

APPENDIX 6

Stocks on World Raw Material Markets End of June 1926–33 and at the Beginning of 1934[1]

Commodity	*Unit*	*1926*	*1927*	*1928*	*1929*	*1930*	*1931*	*1932*	*1933*	*1934 Jan.*[2]	*1934 April*[2]	*1934 May*[2]
Wheat . . .	1,000 t.	3,802	4,981	6,654	9,558	10,312	12,068	12,106	13,254	17,462	15,154	14,224
Coffee . . .	1,000 t.	444	482	1,044	847	1,608	1,498	1,891	1,381			
Cotton . . .	1,000 t.	979	1,282	1,125	1,015	1,350	1,717	1,836	1,892	2,231	1,943	1,670[3]
Rubber . . .	1,000 t.	183	279	263	294	425	546	653	606	661	660	681
Coal . . .	1,000 t.	10,829	5,356	5,848	2,958	13,988	19,663	21,492	20,973	18,627	18,611	18,584
Oil . . .	Mill. hl.	447	502	590	603	601	553	504	482	495	496	
Copper . . .	1,000 t.	60	87	53	75	288	375	600	525			
Lead . . .	1,000 t.			54[4]	49[4]	58	140	180	202	218	232	241
Tin . . .	1,000 t.	16	16	16	24	43	53	50	47	28·4	22·7	20·4[3]

[1] Compiled according to Weekly Statements of the *I.f.K.* iv, p. 91; v, p. 89; vi, p. 31 and of *Wirtschaft und Statistik.*

[2] As to the figures given in the last three columns, seasonal influences are, here and there, to be taken into consideration.

[3] Estimated for June.

[4] Estimated for March.

APPENDIX 7

Break-down of International Credit during the Crisis

(*a*) *International Short-term Indebtedness*[1]

End of	*1,000 millions of Swiss Francs*
1930	70
1931	45
1932	39
1933	32[2]

Of which Germany owed:

1930	18·5 = 26·4%
1933	8·4 = 26.2%

(*b*) *Foreign Securities issued at New York Exchange*[3]

During the year	*Mill.* $
1928	1,583
1929	785
1930	1,148
1931	269[4]
1932	67
1933	62

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[1] Liabilities of the European Countries and of the U.S.A. only.

[2] *Annual Report of B.I.S.* for the year 1933–4.

[3] According to *Commercial and Financial Chronicle.*

[4] Of which 218 mill. $ during the first six months.

APPENDIX 8

Wholesale Prices on Foreign Markets

Annual or monthly average

Commodity	*Market*	*Quantity*	*Currency*	*Year 1927*	*June 1928*	*Dec. 1928*	*June 1929*	*Dec. 1929*	*June 1930*	*Dec. 1930*	*June 1931*	*Dec. 1931*
Wheat, Eng. Gaz. av. . .	London	112 lb.	*s. d.*	11.6¾	11.0⅜	9.8	9.7½	9.4¾	8.6¾	6.3	5.11¼	6.5
Sugar, Cuban 96 deg. . .	New York	1 lb.	cts.	4·75	4·39	3·94	3·54	3·76	3·26	3·30	3·32	3·14
Coffee, Rio No. 7 . . .	New York	1 lb.	cts.	14·75	15·58	17·97	16·75	9·94	9·10	7·09	6·76	6·88
Copra, Ceylon . . .	London	lt[1]	*£ s. d.*	28.11.7	28.5.6	26.6.10	22.7.0	24.2.6	20.7.0	17.0.6	13.2.0	16.19.6
Coal, Northumberland unscr. .	Newcastle	lt[1]	*s. d.*	14.0⅜	12.0	12.6	14.3	15.6	12.6	12.6	12.4	12.4
Petrol 60/62 Beaumé fob. .	New Orleans	am. gall.	cts.	8·58	9·47[2]		9·51[2]		9·00	5·88	4·00	4·75
Pig iron, Cleveland No. 3 .	Gr. Brit.	lt[1]	*s. d.*	73·3⅜	66.0	66.0	71.10½	72.6	67.6	63.6	58.6	58.6
Copper, Electrolytic . .	New York	1 lb.	cts.	13·13	14·75	16·06	18·00	18·00	12·36	10·63	8·25	6·88
Tin	New York	1 lb.	cts.	64·44	48·15	49·91	44·13	39·72	30·31	25·28	23·50	21·38
Zinc	New York	1 lb.	cts.	6·59	6·49	6·70	6·98	5·99	4·45	4·10	3·40	3·15
Lead	New York	1 lb.	cts.	6·75	6·30	6·46	7·00	6·25	5·43	5·10	3·92	3·79
Cotton, middling upland .	New York	1 lb.	cts.	17·48	21·54	20·53	18·81	17·28	14·46	10·02	9·05	6·25
Wool, N.S.W. greasy, super combings	London	1 lb.	*d.*	27.50	27.63[2]		23.00	17.00	14.00	11.00	11.00	11.00
Hides, best heavy ox . .	London	1 lb.	*d.*	8¼	9¾	7¾	6⅜	6¼	6¼	6⅛	4¾	5⅞
Rubber, Plant. crepe[3] . .	New York	1 lb.	cts.	31·46	22·15	19·31	21·57	16·52	12·36	8·96	6·88	4·88

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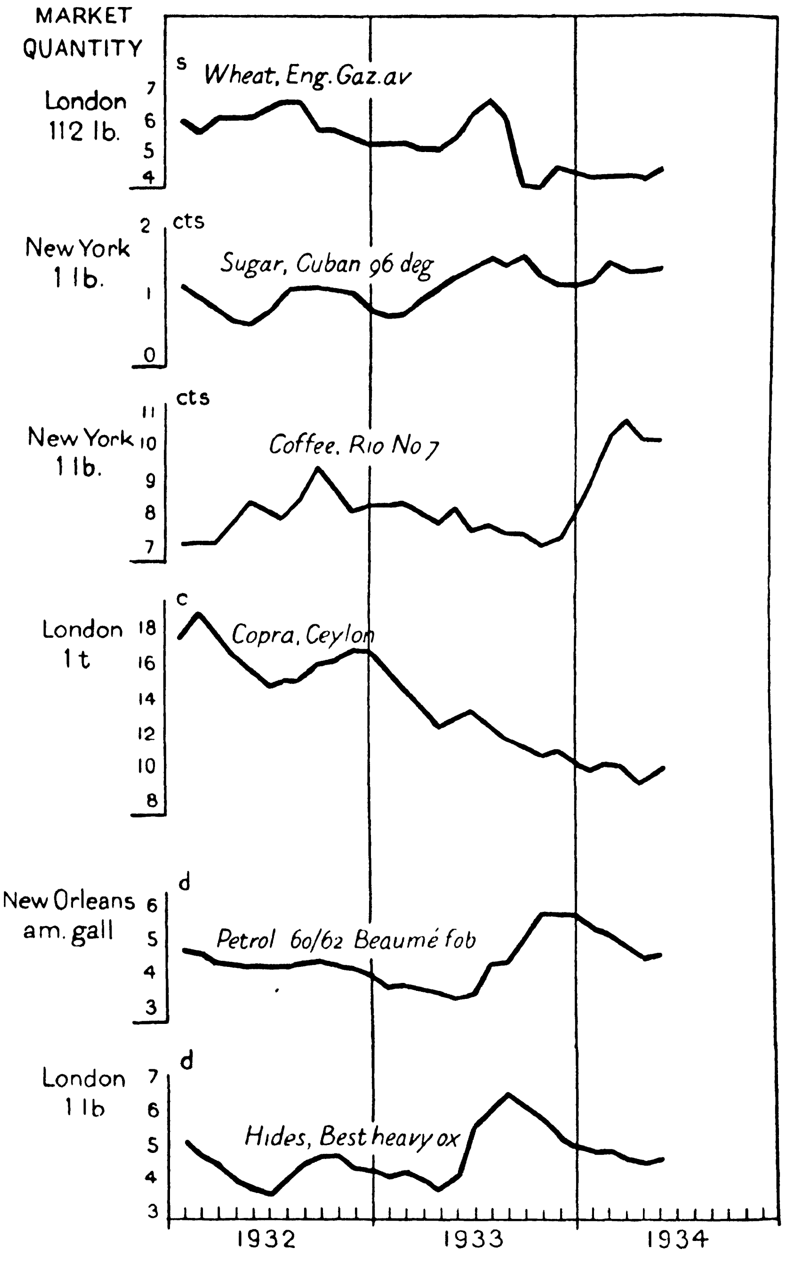
[1] lt—long ton—2,240 lb.

[2] Annual average.

[3] From 1929, previously Up-River fine. From *Statistisches Jahrbuch f. d. Dt. Reich.*

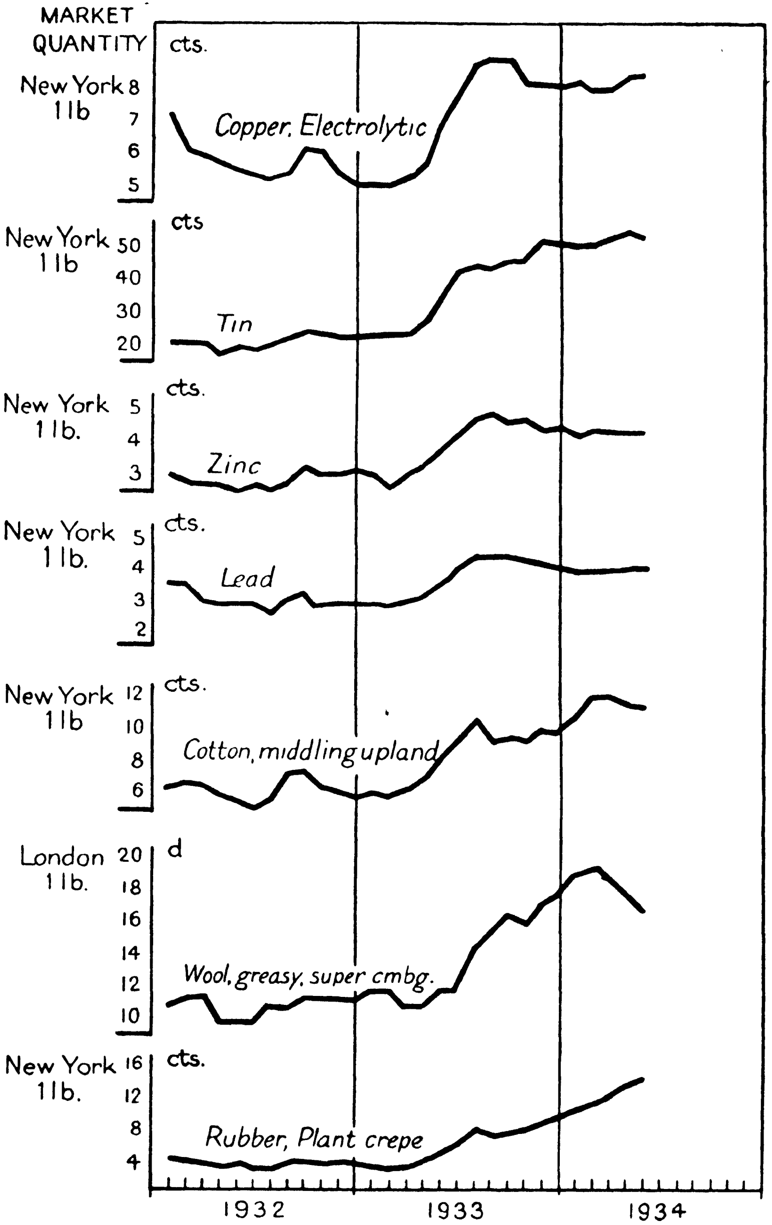
APPENDIX 9

Wholesale Prices on Foreign



APPENDIX 9

Markets, 1932–4[1] *(monthly average)*



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[1] As per *Wirtschaft und Statistik.*

APPENDIX 10

Share of the Countries with Depreciated Currencies in the World Trade during the Years 1929 and 1933 respectively[1]

Country	*Depreciation in the middle of 1934 in % of parity*	*Share in the World Trade in % of turnover*	
		1929	*1933*
Great Britain	38	13·21	13·93
British India and Malaya	same as £	4·58	3·94
Canada	40	3·59	2·86
Australia and New Zealand	47	2·62	2·70
Other countries of the Empire	same as £	4·02	4·31
Great Britain and Empire		28·02	27·74
U.S.A.	40	14·03	10·47
Japan (including Corea and Formosa)	64	4·47	5·09
Argentine	66	2·55	2·13
Czechoslovakia	16⅔	1·76	1·46
Sweden	42	1·42	1·58
Spain	58	1·38	1·22
Denmark	50	1·31	1·49
Brazil	63	1·29	1·31
Austria	17	1·13	0·92
Other countries with depreciated currencies[2]			
Europe (3)	23 Jugoslavia —54 Greece	2·40	2·56
Asia (7)		1·01	1·20
South and Central America (18)		3·95	3·03
		64·72	60·20

[1] According to *Stat. Jahrbuch f. d. Dt. Reich* and statements of the *Stat. Reichsamt.*

[2] Countries sharing less than 1 per cent. in the world trade.

APPENDIX 11

German Exports 1928 and 1933 respectively[1]

To	*1928 in mill. RM.*	*1933 in mill. RM.*	*Decrease in %*
(*a*) *Countries with depreciated currencies:*			
Sweden	430·7	191·1	
Norway	168·5	85·0	
Denmark	427·5	144·7	
Scandinavian countries	1,026·7	420·8	59·01
Great Britain	1,179·8	405·6	65·62
South Africa	100·0	40·2	
Canada	68·1	28·0	
Australia	63·9	20·6	
British India	222·9	86·8	
Important countries of the Empire	454·9	175·6	61·40
U.S.A.	795·9	245·9	69·10
(*b*) *Gold Countries:*[2]			
Switzerland	572·8	352·4	38·48
France	693·4	395·0	43·03
Belgium-Luxemburg	488·6	278·1	43·08
Netherlands	1,175·3	612·8	47·86
Italy	546·9	227·3	58·44

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[1] According to *Stat. Jahrbuch f. d. Dt. Reich* (1928) and *Wirtschaft und Statistik* (1933).

[2] Figures of trade with Poland not apt for comparison.

APPENDIX 12

I. *The World Indebtedness 1913*

Foreign investments of	*Amount in 1,000 millions of RM.*	*Made to*
United Kingdom[1] .	70–80	U.S.A. (53%), Asia (16%), Africa (14%), Australia (12%), Europe (5%)[3]
France[1] . . .	35–45	Russia (35 to 40%),[4] rest dispersed
Germany[2] . .	25–30	Various countries, mostly oversea

[1] No own indebtedness of any weight.

[2] Own indebtedness according to highest estimate 10,000 millions, probably less.

[3] *Handw. B. d. Staatsw.*, 1929, suppl., article: 'Internationale Kapitalbewegungen'.

[4] According to various French statements.

The whole international net pre-War indebtedness may be estimated at not more than *150,000 millions of goldmarks.*

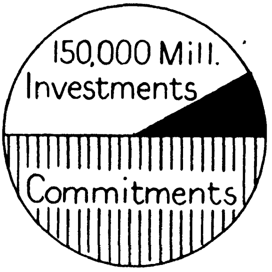
II. *Present Indebtedness*

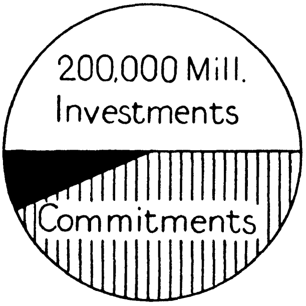
In the absence of somewhat reliable data on private indebtedness to-day's world indebtedness can be estimated quite approximately only. Considering the heavy decline after the crisis, it may be estimated—taking into account the depreciation of currencies—at about *200,000 millions of Reichsmarks.*

III. *Germany and the Interlocking of International Capital*

(*a*) 1913:
Germany is creditor
with 22,000 millions = 14%

(*b*) 1933:
Germany is debtor
with 18,000 millions = 9%





APPENDIX 13

Pre-War Rates for Bankers' Bills

In %

Average	*Berlin*	*New York*[1]	*London*	*Paris*	*Amsterdam*	*Switzerland*
1876	3·04		1·89	2·09	2·75	
1880	3·04		2·31	2·51	2·69	
1885	2·85		2·09	2·46	2·39	
1890	3·78		3·73	2·65	2·56	
1895	2·01		0·85	1·55	1·51	
1900	4·41		3·70	3·17	3·44	
1905	2·85		2·66	2·10	2·38	
1906	4·04		4·05	2·72	3·74	
1907	5·12		4·53	3·40	4·84	4·49
1908	3·52	4·62	2·31	2·25	3·00	3·41
1909	2·87	3·92	2·31	1·79	2·04	2·75
1910	3·54	5·07	3·18	2·44	3·59	3·36
1911	3·54	2·56	2·94	2·61	3·19	3·40
1912	4·22	3·70	3·64	3·16	3·89	3·89
1913	4·98	3·20	4·39	3·84	4·27	4·52

[1] From 1911 rate for overnight money.

APPENDIX 14

Pre-War Yield of Securities with Fixed Interest

NOTE. The calculation of yield has been based on:
for Germany: up to 1889 4%, from 1890 3½% Reich Loan;
for U.S.A.:[1] 4% Centr. Pacific Railway First Refunding Mortgage Gold Bonds;
for United Kingdom: 2½%, from 1903 2¾% Consols;
for France: 3% rent;
for Netherlands: 3% Government Loan;
for Switzerland: 3½% S.B.B.-Obl., series A–K.

In %

Average yield	*Germany*	*U.S.A.*	*United Kingdom*	*France*	*Netherlands*	*Switzerland*
1880–4	3·94	..	3·02	3·70		
1885–9	3·76	..	2·94	3·66		
1890–4	3·49	..	2·82	3·11		
1895–9	3·40	..	2·52	2·94		
1900–4	3·49	about 4·00	2·86	3·01		about 3·56
1905–8	3·61	„ 4·10	2·86	3·09	3·29[2]	„ 3·58
1909–13	3·83	„ 4·20	3·18	3·19	3·55	„ 3·77

[1] The yield of U.S.A. State Bonds cannot be compared.

[2] 1906–8.

APPENDIX 15

Pre-War and Post-War Trade Balances

Import or Export surplus in % of the whole Foreign Trade

	1905–13	*1925–33*
A. *Present Creditor Countries:*		
U.S.A.	+14·4	+ 7·3
United Kingdom	−14·4	−23·7
Netherlands	−10·6	−16·8
Switzerland	−17·8	−16·9
France	− 7·2	− 6·0
B. *Present Debtor Country:*		
Germany	− 9·3	− 0·9

Inquiries concerning other larger debtor countries cannot be made, as partly considerable territorial changes have taken place (as f.i. in Austria) and partly reliable figures are not available (as in the case of South America).

APPENDIX 16

Post-War Rates for Bankers' Bills

In %

Average	*Berlin*	*New York*[1]	*London*[2]	*Paris*	*Amsterdam*	*Switzerland*
1925	7·62	3·44	4·13			2·27
1926	4·92	3·59	4·47			2·52
1927	5·49	3·51	4·24		3·65	3·27
1928	6·53	4·16	4·15	3·06	4·18	3·33
1929	6·87	5·09	5·25	3·44	4·82	3·31
1930	4·43	2·53	2·56	2·31	2·09	2·01
1931	6·78	1·65	3·60	1·54	1·39	1·44
1932	4·95	1·31	1·87	1·31	0·77	1·52
1933	3·88	0·67	0·67	1·82	1·02	1·50
First six months 1934	3·86	0·38	0·95	2·62	0·99	1·50

[1] Rate for 90 d/s bills.

[2] Rate for three-month bank bills.

APPENDIX 17

Post-War Yield of Securities with Fixed Interest

Note. The calculation of yield has been based on:

for Germany: Fixed interest securities at Berlin Bourse;
for U.S.A.: 4¼% Liberty Loan 1933–8;
for United Kingdom: 3½% Conversion Loan;
for France: 3% rent;
for Netherlands: 3½% Government Loan of 1911;
for Switzerland: 3½% S.B.B.-Obl., series A.–K.

In %

At the end of	*Germany*	*U.S.A.*	*United Kingdom*	*France*	*Netherlands*	*Switzerland*
1925	9·72	4·17	4·65	6·01	4·03	4·23
1926	7·99	4·09	4·67	5·45	4·03	4·67
1927	7·25	4·09	4·55	4·84	4·06	4·45
1928	7·83	4·24	4·42	4·54	3·90	4·27
1929	8·18	4·19	4·71	3·56	3·96	4·29
1930	7·95	4·10	4·28	3·51	3·71	3·91
1931	9·00	4·27	4·83	3·79	5·00	3·87
1932	8·96	4·10	3·54	3·87	3·61	3·58
1933	7·23	4·17	3·47	4·48	3·65	3·77
End of June 1934	6·54	4·09	3·37	3·86	3·50	4·20

APPENDIX 18

Losses of German Trade and Industry by the Versailles Treaty (besides Reparations)[1]

In 1914 the German Reich had		*Of which belonged to the ceded territories*	
an area of	541,000 qkm.	71,000 qkm.	= 13·1%
a population of	67,800,000	6,400,000	= 9·4%
In 1913 in Germany totalled:			
the oxen and cow stock . .	21,000,000	2,600,000	= 12·4%
the pig stock	25,600,000	3,200,000	= 12·5%
the forests	14,000,000 ha.	1,500,000 ha.	= 10·7%
the production of cereals . .	30,000,000 t.	5,000,000 t.	= 16·7%
the production of potatoes . .	54,000,000 t.	11,000,000 t.	= 20·4%
the coal output	190,000,000 t.	49,000,000 t.	= 25·8%
the iron ore output . . .	28,600,000 t.	21,300,000 t.	= 74·5%
the zinc output	646,000 t.	441,000 t.	= 68·3%
Total aggregate amount of potash, contained in the mines (as estimated):			
(*a*) crude salt	21,500 mill. t.	1,500 mill. t.	= 7%
(*b*) clean potash	2,300 mill. t.	300 mill. t.	= 13%

Besides Germany lost her colonies.

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[1] Figures taken from Dr. Paul Blankenburg und Max Dreyer, *Nationalsozialistischer Wirtschaftsaufbau und seine Grundlagen.*

APPENDIX 19

Development of German Foreign Indebtedness since December 1930

Amounts in thousands of millions of RM.
(calculated at the quotations of the basic dates)

Amount at the end of	*Short-term credits*	*Long-term credits*	*Total*	*Other foreign capital investments in Germany*	*Total of columns 3 and 4*
	1	*2*	*3*	*4*	*5*
December 1930	14·5–15·00	10·8	25·3–25·8	6·8	32·1–32·6
July 1931	13·1	10·7	23·8	5·9	29·7
November 1931	10·6	10·7	21·3	5·3	26·6
February 1932	10·1	10·5	20·6	5·3	25·9
September 1932	9·3	10·2	19·5	4·3–5·3	23·8–24·8
February 1933	8·7	10·3	19·0	about 4·2	about 23·2
September 1933	7·4	7·4	14·8	„ 4·2	„ 19·0
February 1934	6·7	7·2	13·9	„ 4·2	„ 18·1

APPENDIX 20

Decrease of Gold and Exchange Reserve of the Reichsbank

(Gold and foreign exchanges eligible for cover)

Date	*Holdings*	*After deduction of*[1]
	in millions RM.	
1930: 30 June	3,078	..
31 December	2,685	..
1931: 30 June	1,721	..
31 December	524	632
1932: 30 June	393	569
31 December	367	553
1933: 30 June	273	..
31 December	396	..
1934: 30 June	77	..

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[1] Amount of the rediscount credits of the Reichsbank and the Deutsche Golddiskontbank.

APPENDIX 21

German Foreign Trade 1929 to June 30, 1934

(Total of goods trade without gold and silver)

			Balance			
	Imports	*Exports*	*+favourable*	*−adverse*	*Imports*	*Exports*
Period	*Values in millions of RM.*				*Quantities in 1,000 t.*	
1929	13,447	12,663		−784	66,777	69,378
1930	10,393	11,328	+ 935		56,952	63,581
1931	6,727	9,206	+2,479		40,780	57,296
1932	4,667	5,677	+1,010		33,148	42,915
1933	4,204	4,871	+ 667		35,391	41,832
First 6 months of 1934	2,303	2,086		−217	20,691	21,517

APPENDIX 22

EXTRACT FROM:

I. *Report of the committee of August 18, 1931, appointed on the recommendation of the London Conference of 1931 (Wiggin, Layton)*

Pages 1–2. On the other hand, Germany plays so important a role in the economic life of the world and of Europe in particular that until the situation in Germany improves there can be no general recovery from the existing state of depression.

The payments made to foreigners in these years (1924–30) have not therefore been effectively made out of Germany's own resources and will not be so made until such time as a corresponding part of these commercial debts are repaid by the export of gold, goods, or services.

Page 7. To export nearly twice as much as Germany imports would—even if it were practicable—involve a serious dislocation of her economic life. To maintain exports (part at all events of which could at once be made from existing stocks) in the highly competitive conditions obtaining at the present time involves the sale of goods at very low prices, while the reduction of imports on the scale proposed involves a low level of consumption in Germany. It is therefore a policy of continued impoverishment and high unemployment brought about by restricted credit. Clearly also it will accentuate the world depression by reducing the sales of other countries to Germany and by creating intense competition from her exports in other markets. If, as is to be feared, this results in the taking by other countries of counter measures to protect their markets the level of trade will be still further depressed. We consider it highly undesirable in the general interest that Germany should be compelled to adopt so drastic a solution.

Page 10. We would point out that the case of Germany provides the most forcible illustration of the fact that in recent years the world has been endeavouring to pursue two contradictory policies, in permitting the development of an international financial system which involves the annual payment of large sums by debtor to creditor countries, while at the same time putting obstacles in the way of the free movement of goods. So long as these obstacles remain, such movements of capital must necessarily throw the world's financial balance out of equilibrium.

II. *Report of the special Advisory Committee of December 23, 1931* (*Beneduce, Layton*)

Page 5. Every country has been shaken by that crisis, but its effects in Germany, as well as in some other countries of Central and Eastern Europe, were devastating. . . .

The pressure upon the whole structure of Germany culminated in the Emergency Decree of December 8, 1931, which includes measures without parallel in modern legislation.

Page 10. Ever since the inflation period the demand for capital in Germany in relation to the supply from domestic sources has kept interest rates above those prevailing in other countries. During 1930, advances to manufacturers of first-class standing seldom cost less than 8 per cent.; in recent months the cost has been about 50 per cent. higher, i.e. the rates have risen to about 12 per cent. This burden naturally imposes a heavy strain on German industry, and is one of the causes of the present decline in industrial activity.

Page 12. In view of the measures taken in the four Decrees, relating to taxation and expenditure, issued in the last two years, and in particular in that of December 8, 1931, the Committee is of opinion that the burden of taxation has become so high that there is no margin for a further increase.

Page 19. The Young Plan, with its rising series of annuities, contemplated a steady expansion in world trade, not merely in volume but in value, in which the annuities payable by Germany would become a factor of diminishing importance. In fact the opposite has been the case.

APPENDIX 23

Development of Unemployment in Germany since 1930

(Total number of unemployed at the end of each month, without the so-called invisible unemployment)

In thousands

Months	*1930*	*1931*	*1932*	*1933*	*1934*
January	3,218	4,887	6,042	6,014	3,773
February	3,366	4,972	6,128[1]	6,001	3,373
March	3,041	4,744	6,034	5,599	2,798
April	2,787	4,358	5,739	5,331	2,609
May	2,635	4,053	5,583	5,039	2,529
June	2,641	3,954	5,476	4,857	2,481
July	2,765	3,990	5,392	4,464	2,426
August	2,883	4,215	5,224	4,124	
September	3,004	4,355	5,103	3,849	
October	3,252	4,624	5,109	3,745	
November	3,699	5,060	5,355	3,715	
December	4,384	5,668	5,773	4,059	

[1] Maximum.

APPENDIX 24

Measures restricting Importation in the Principal Creditor Countries since Autumn 1931 (examples)

Preliminary remarks:

The measures specified are chiefly measures specifically directed against Germany or measures calculated materially to obstruct exportation from Germany.

GREAT BRITAIN

September 1931. Departure from the gold standard.

December 1931. Duty of 50 per cent. *ad valorem* on numerous finished goods.

March 1932. Duty of 10 per cent. *ad valorem* on almost all imported goods. The 50 per cent. *ad valorem* duty on finished goods withdrawn and additional duties of 10–23½ per cent. substituted as from April 26, 1932.

May 1932. Raising of the duty on yarns and fabrics of silk and rayon.

November 1932. As a result of the Ottawa Agreements imposition of new and raising of existing duties on commodities not originating within the Empire.

February 1933. Raising of the duty on iron and steel wire.

May 1933. Raising of the duty on fabric gloves, basket or wicker work, earthenware goods.

April 1934. Raising of the duty on electric arc-light carbons.

May 1934. Raising of duty on glassware.

FRANCE

Autumn 1931. Import quotas for the principal agricultural products. Beginning of a general quota policy leading gradually to a complete undermining of the Franco-German Commercial Treaty of 1927. Discriminatory additional duty on German malt.

Winter 1931–2 and spring 1932. The import quota system extended to the principal industrial goods and German imports at the same time considerably reduced. These measures only partly mitigated by Franco-German industrial agreements.

April 1932. Raising of the turnover tax on imports to 4 per cent. for half-finished goods and to 6 per cent. for finished goods (cancelled again only as from August 1, 1934, and after Germany had been discriminated against for some time in comparison with important competitor countries).

Import prohibition for German potatoes and horticultural products (retaliatory measure against the German decree to check the immigration of the colorado beetle from France).

Authority granted to make certificates of origin compulsory for imported goods.

1933. Extension of the quota system to an increasing number of commodity groups.

Imposition of so-called quota duties on numerous goods falling under the quota system (as for instance on coal).

Tariff engagements cancelled in many cases and duties on various goods raised the exportation of which was greatly in Germany's interest.

Certificate of origin made obligatory for a large number of finished goods.

Autumn 1933. A system of reciprocity adopted with regard to import quotas (the existing quotas continued without equivalent only up to 25 per cent. The remaining 75 per cent. only against equivalent export quotas granted to France).

January 1934. The Franco-German negotiations having been broken off, the German export surplus was reduced by 300 million francs by severe reduction of the import quotas granted to Germany, whereas practically all other countries retained their existing quotas to their full extent (100 per cent.).

After comparatively mild retaliatory measures by Germany (in the relation of 2 : 1) the German French Commercial Treaty of 1929, including its additional agreements, was denounced by the French Government.

Spring 1934. More tariff engagements were cancelled and duties raised on goods exported especially by Germany.

NETHERLANDS

January 1932. The tariff is raised by about 20–5 per cent.

1932. Numerous import quotas are established (for instance, for shoes, fabrics, china and earthenware, electric glow lamps).

1933. Further import quotas (for instance for underclothing, sheet zinc, wire and wire-tacks, leather, vacuum cleaners, furniture, household glassware, oil-cake), reduction of quotas (for instance table linen, cotton fabric), duties raised for numerous articles (for instance for microscopes, field-glasses, typewriters and calculating machines, cameras and accessories, thermometers, watches).

1934. Introduction of a turnover tax of 4 and 10 per cent. resp. *ad valorem* which is also collected on importation and of an additional duty of 1 and 2 per cent. resp. *ad valorem*; considerable restriction of almost all quotas, introduction of numerous new quotas (for instance, for rayon and linen fabrics, nitrogeneous fertilizers, cement, various chemicals, iron stoves and baths, thread, coal, locks).

Introduction of a new tariff on July 1, 1934, with increased rates in many cases and a considerable increase of the number of dutiable goods. The compulsory clearing with Germany introduced on August 15, 1934, does not directly hamper German exports but delays payments as numerous complaints testify.

SWITZERLAND

1931. Numerous duties raised (for instance, for rubber and gutta-percha fabrics, shoes, &c.).

February 1932. Import quotas directed specifically against Germany, such as for artificial manures, pine wood, furniture, cotton covers and ribbons, silk fabrics, worsted goods, motor-cycles, lead-pencils.

May 1932. Import permits made obligatory for coal, sugar, cereals (so-called compensation goods); quotas for fruit, vegetables, &c.

June 1932. Quotas for worsted fabrics, wicker furniture, wickerwork goods, &c.

July 1932. Quotas for timber, turnery ware, corsets, &c.

Oct.–Dec. 1932. Quotas for rayon.

Duty on potatoes raised; the so-called surplus duty raised (on goods imported without import permit in addition to the quota) for worsted and knitted goods.

1933–4. Further extension of the quota system (radio apparatus, wool and cotton fabrics, motor-cars, bicycles, woollen yarn, &c.) and of the raising of duties (radio apparatus, bicycle parts, carbide, &c.). To-day of 1,200 Swiss tariffed articles already about 400 are subject to the compulsory import permit system. Adjustment of the commercial relations between Germany and Switzerland by short-term and provisional arrangements only (at the end of July 1934 a German–Swiss Clearing Agreement was at last concluded).

U.S.A.

Very high protective tariffs from the outset. In 1930 tariff law imposing plainly prohibitive duties on many commodities (tariff raised on an average from 33·22 to 40 per cent.).

September 1932. Compensation duties on commodities for which the manufacturing countries have increased their own duties.

April 1933. Departure from the gold standard.

1933. Further increase of duties on some commodities that are imported almost exclusively from Germany by up to 50 per cent.

General measures obstructing importation

1. Goods are frequently passed free of duty with a proviso that an additional dumping duty may be collected later on. Thus the importer does not know from which primary cost he is to start in calculating the selling price of the goods and in consequence of this uncertainty refrains from giving further orders. The investigations made by the American authorities in order to establish the existence of conditions warranting anti-dumping measures are in themselves a great obstruction to commerce.

2. The narrow-minded application by the authorities of the American marking regulations frequently involves an increase in the cost of production and therefore hampers importation. At the same time the regulations operate so as to facilitate boycotting movements.

APPENDIX 25

Increase of Germany's Foreign Debts Burden caused by the International Collapse of Prices

The burden of the German foreign indebtedness has been relieved on paper by 20 to 25 per cent. in consequence of the depreciation of foreign currencies. This relief is being essentially over-compensated by the international sudden fall of prices. The table below shows, by means of some clear examples of German exports, the after-effects on exports of this collapse of prices.

In order to raise one million RM. for payments abroad, Germany had to export:

Class of goods	*1928* (t.)	*1933* (t.)	*Thus more 1933:* %
Leather and furs[1]	35	73	109
Chemical raw material[2]	5,131	10,134	97
Coal and coke	47,093	83,703	78
Copperware	336	595	77
Textiles[3]	86	148	73
Paper and paper articles	1,401	2,133	52
Textiles (finished articles)[4]	82	115	40

[1] Leather and leatherware, including boots and shoes, furs and furriery.

[2] Sulphate of ammonia and other chemical raw material and half-finished products.

[3] Made from silk, rayon, wool, cotton, flax, hemp, and jute.

[4] Clothing, linen, and other textile goods.

APPENDIX 26

The 15 largest Trading Nations and their Export-percentage to Germany as compared with their Exports total of 1928[1]

Country	*Percentage of world Exports*	*Total of exports*	*Exports to Germany*	
		In mill. RM.	*In mill. RM.*	*Percentage of exports total*
U.S.A.	15·61	21,081	1,928	9·1
Great Britain	10·93	14,755	835	5·7
France	6·34	8,562	924	10·8
Canada	4·16	5,613	191	3·4
British India	3·75	5,067	494	9·8
Japan, proper	3·37	3,839	24	0·6
Argentina	3·16	4,264	586	13·7
Belgium-Luxemburg	2·67	3,607	493	13·7
Netherlands	2·48	3,348	788	23·5
Italy	2·45	3,305	409	12·4
China	2·19	2,954	68	2·3
Australia	2·01	2,849[2]	246	8·6
Dutch Indies	1·97	2,658	80	3·0
Czechoslovakia	1·95	2,630	579	22·0
Brazil	1·48	1,994	223	11·2
Total	64·52			

[1] According to *Stat. Jahrbuch f. d. Dt. Reich.*

[2] Year ending June 30.

APPENDIX 27

Wholesale Prices: Fluctuations of the Indexes from 1900 to 1913[1]

Year	*Germany* 1913 = 100	*Great Britain* 1910–14 = 100	*U.S.A.* 1910–14 = 100
1900	87·3	91	82
1901	81·8	85	81
1902	81·0	84	86
1903	80·3	84	87
1904	83·1	85	87
1905	86·1	87	88
1906	87·7	93	90
1907	98·3	97	95
1908	93·1	88	92
1909	93·2	90	99
1910	90·5	94	103
1911	97·2	97	95
1912	108·0	103	101
1913	100·0	103	102

[1] Germany according to *Stat. Jahrbuch*; Great Britain and U.S.A. to Warren-Pearson *Prices.*

APPENDIX 28

Pre-War Net Balances of Trade

(In four-yearly averages)

In 1,000 millions of marks	*Germany*	*Great Britain*
1890–3	−0·9	−2·4
1894–7	−0·9	−2·9
1898–1901	−1·2	−3·4
1902–5	−1·1	−3·6
1906–9	−1·7	−2·9
1910–13	−1·4	−2·8

In order to meet the German foreign indebtedness in its present state a favourable trade balance of +1·0 would be required.

The consequences of this for the world trade would be the following: the German adverse balance for 1924–33 amounted in the yearly average to 500 millions of reichsmarks. We may take this figure as starting-point, although it is too favourable considering the violent forcing of exports in the initial stage of the world crisis. If Germany could export raw material, the world would have to receive commodities for 1,500 millions of reichsmarks more from Germany than hitherto. As, however, Germany has no appreciable sources of raw material but has to export finished commodities, the production of which necessitates importation of foreign raw material and half-finished goods to a considerable extent, the amount for which foreign countries would have to receive surplus commodities from Germany would increase theoretically to about 3,000 millions of reichsmarks. This amount which is equal to 55 per cent. of the exports of the United States in 1933, would alone be sufficient to dislocate the world's markets. In practice the proportion is even more unfavourable in view of the complicated structure of the world's commercial system.

APPENDIX 29

German Imports 1924–9 and the Share of the U.S.A. therein[1]

(In millions of RM.)

Year	*German import*	*Of which from U.S.A.*
1924	9,083	1,708
1925	12,362	2,196
1926	10,001	1,602
1927	14,228	2,073
1928	14,051	2,026
1929	13,447	1,790

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[1] According to *Stat. Jahrbuch f. d. Dt. Reich.*

APPENDIX 30

Imports and Indebtedness of Germany from 1924 to 1929 as per Statements laid before the Experts Conference held at Basle on August 18, 1931

(In billions of RM.)

Year	*Capital-Transactions*[1]		*Sundries*	*Total*	*Imports*
	Long term	*Short term*			
1924	+1·0	+1·5	+0·4	+2·9	9·7
1925	+1·1	+0·3	+1·7	+3·1	12·0
1926	+1·4	+0·1	−0·9	+0·6	9·9
1927	+1·7	+1·8	+0·4	+3·9	14·1
1928	+1·7	+1·4	+1·2	+4·3	13·9
1929	+0·6	+1·1	+1·0	+2·7	13·6

[1] The total debts estimates of the Layton Report were approximately 6 billions RM. too low, as is seen from the first official inquiry of the German foreign indebtedness of July 28, 1931. It is not possible to distribute this amount exactly on the different years.

APPENDIX 31

Germany as Purchaser on the World Market

(*Wochenber. d. Inst. f. Konj.-Forsch, Nr. 16* of 25. iv. 34

In 1931 totalled:

	Production In metric tons	*Imports to Germany*	
		In metric tons	*% of production*
Raw wool			
World	1,650,000[1]	rd. 220,000[2]	13·3
Raw silk			
World	58,100	3,049	5·2
Cotton			
World	5,969,000	379,809	6·4
Iron ore			
France	38,784,200	1,920,339	5·0
Algeria	898,800	403,358	44·9
Tunis	447,000	118,369	26·5
Sweden	7,070,900	2,802,822	39·6
Spain	3,190,200	803,590	25·2
Copper			
World	1,250,700[1]	192,104	15·4
Lead			
World	1,242,100[1]	64,570	5·2
Tin			
World	152,900[1]	13,513	8·8
Zinc			
World	951,900[1]	118,982	12·5
Tobacco			
World	1,700,000	69,791	4·1
Rubber			
World	810,000	48,010	5·9

[1] World production without Germany.

[2] Washed wool, wool washed on the back and tops calculated in raw wool.

APPENDIX 32

Some Examples of Social Disturbances Abroad in 1933 and 1934[1]

1. Mutiny on a Dutch man-of-war in Dutch-India at the beginning of February 1933 following on a reduction of pay (22 dead, 22 wounded).
2. Strike of railway-men in Bucarest and Klausenburg in the middle of February 1933 (5 dead, 28 severely wounded, numerous slightly wounded).
3. Anarchistic and syndicalistic strike attempts in Madrid, Barcelona, &c., at the beginning of May 1933 (9 dead, numerous wounded).
4. In October 1933 labour troubles in the coal and iron districts of the United States; numerous bloody collisions. At about the same time in the five principal agricultural states of the United States permanent troubles, delivery and tax strikes of the farmers, numerous collisions between farmers and police.
5. Revolt of the Arabian rural population of Palestine at the beginning of November 1933. Political and social causes (21 dead, 92 severely wounded).
6. Anarchistic and syndicalistic labour troubles in Spain at the beginning of December 1933; political and economic causes (about 100 dead, numerous wounded; considerable damage).
7. Labour troubles in France, especially in Paris, at the beginning of February 1934. General strike attempt; chiefly home political causes (29 dead, numerous wounded).
8. Middle of February 1934 Marxist labour revolt in Austria (297 dead, 802 wounded; considerable damage).
9. Strike troubles in Barcelona in the middle of April 1934 (2 dead, 15 wounded).
10. Collision during the strike of the (flour) mill workers in Greece in the middle of May 1934 (4 dead, several wounded).
11. At the beginning of July 1934 communist troubles in Amsterdam. Direct cause: reduction of the unemployment relief (10 dead, 60 severely wounded).
12. Strikes in different large towns of the United States; bloody collisions between the strikers and the militia (several dead).
13. Strike troubles in San Francisco in July 1934 (8 dead, 197 wounded, approximately 150 million dollars damage).

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[1] From various sources.

APPENDIX 33

On the Question of a Reduction of Interest for Dollar Bonds

The holder of a 7% Dawes Loan bond of $1,000.00 has received, since issue of that loan, interest 19 × $35.00	= $665·00
If the rate of interest were only 4%, he would have received only 19 × $20.00	= $380.00
The difference of	$285.00
would have yielded—at a rate of 4% and when accrediting the interest every 6 months—in interest and compound interest	$57.60
The bondholder thus having received an excessive amount of . .	$342.60
	i.e. 34% of the original amount of the bond.

APPENDIX 34

Dollar-Bond Prices in New York

	Dawes Loan	*Young Loan*	*Municipal Loan*	*Industrial Bonds*	*All Securities*	*Interest yield of all securities*
1928	106·5	. .	96·0	96·4	96·3	6·77
1930	104·8	80·8	87·4	87·7	89·0	7·24
1931	85·3	59·3	60·8	63·9	66·0	10·81
1932	63·5	42·2	37·4	36·2	42·6	15·56
June 1933	67·2	43·3	37·2	37·9	42·5	14·97
Sept. 1933	61·4	40·9	32·3	38·1	41·0	15·51
Dec. 1933	75·5	52·0	45·3	51·1	53·6	11·85
March 1934	78·3	51·8	49·4	58·4	57·8	11·04
April 1934	69·5	44·0	42·7	51·8	51·3	12·38
May 1934	69·2	44·7	44·5	52·1	51·7	12·27
June 1934	53·2	37·6	39·4	48·4	45·7	13·92

The much greater steadiness of industrial obligations, as compared with public loans, shows that the German re-purchases of dollar bonds exert a powerful influence to keep prices on a rather steady level and thus are in the interest of foreign countries as well.

INTERNATIONAL DEBTS AND THEIR INFLUENCE ON AGRICULTURAL PRICES

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ALL are agreed that the most obvious symptom of the economic depression is the fall in prices. Differentiated, this fall in the price level shows that wholesale prices have fallen more than retail; that primary products have fallen more than manufactures; that agricultural prices have fallen more than other raw materials. The fact, however, that agricultural prices have shared in a general price movement which covers the whole field of commodities and services is at least prima facie evidence that they have been influenced by a general monetary deflation, or (in other words) by a general appreciation in the value of money. It is desirable, therefore, at the outset to be clear as to what is meant by an appreciation in the value of money and what are its implications. I certainly do not mean that the change has arisen exclusively from phenomena occurring within the monetary sphere, for example, from the mal-distribution of gold, or the credit policy of central banks, although these factors may have played an important part in the deflation. The fact that an appreciation of money has occurred is merely an inference from the course of prices; how it has come about is a matter for economic analysis.

In order to make the position clear I will quote the following passages from the Report of the Committee on Finance and Industry in the United Kingdom, published in 1931.

'Those who assert that the fall in prices is primarily due to monetary causes may mean by this that the fall is due to a failure of the monetary machine throughout the world to adjust itself to general economic perturbations. Those who deny the same proposition, may mean that the changes and disturbances which are ultimately responsible for the fall in prices are non-monetary in origin and character, but there is nothing necessarily inconsistent between these two statements, and both of them may be true. . . . Obviously, the general price level must be governed by the volume of purchasing power directed to the buying of current output relative to the volume of this output.

'Our view is, therefore, that the price level is the outcome of interaction between monetary and non-monetary factors, and that the recent world-wide fall in prices is best described as a monetary phenomenon which has occurred as a result of the monetary system failing to solve successfully a problem of unprecedented difficulty and complexity, set up by a conjunction of highly intractable non-monetary phenomena. Whether the international monetary system *could* have solved this problem is a matter on which we should hesitate to express a dogmatic opinion.'

Now the conditions prior to the slump of 1929 possessed certain features in relation to the monetary and financial condition of the world which made for instability and which tended to remain obscured from the public mind so long as nothing occurred to give a serious shock to public confidence, and some mention of these is necessary to an understanding of the deflationary process which was subsequently set in motion.

One was the relative over valuation of sterling and under valuation of the franc in terms of foreign currencies, so that the United Kingdom was under the necessity of constantly combating the tendency for gold to flow out of the country, and thus her monetary policy assumed a deflationary character many years before the slump. The under valuation of the French franc produced a continuous surplus of exports, and France tended to acquire very large short term funds in London and New York which gradually returned home in the form of gold, thus helping to bring about the great distortion of the world's stock of gold, and ultimately led to the break-down of gold as an international monetary standard.

Another factor was the American industrial boom of the previous years coupled with her new position as the world's chief creditor nation. The continuation of her industrial expansion and the continuation of her foreign lending alike required that other countries should be able to pay by sales of goods to America for the goods she exported on the one hand, and the interest on the loans she had made on the other. The American tariff policy, however, was an obstacle to the settlement of the international accounts in this way, and the balance of payments of European debtor countries was maintained chiefly by the transference of still further amounts of American capital to Europe on loan account.

As the boom developed, a further complication occurred. A counter transference of capital from Europe to America began, attracted by the rise in stock prices in Wall Street, and this in turn started a flow of gold to the United States, which ultimately led to action by most of the European Central banks to protect their gold reserve. Thus a still further distortion of the world's monetary stock of gold took place and a deflationary price movement was set in motion.

In addition to these, there was the international debt position, the principal subject of this paper, which undoubtedly played an enormous part in the depression, not only in deepening its severity, but in opposing formidable obstacles to the recuperative forces which might otherwise have led the world much sooner upon the road to recovery.

In the final analysis, financial payments between nations can only be made in goods and services. There is a fundamental connexion, therefore, between the *scale* on which international payments have to be made and the volume of international trade through which these obligations can be discharged.

In this connexion I might quote a passage from the *International Review of Agriculture* for January 1933, containing a review of the course of the agricultural depression in 1931–2 by M. George Pavlovski, head of the Economics Bureau of the International Institute of Agriculture, Rome.

> 'In the pre-war economic system, international borrowing was one of the most important instruments of economic progress, and the international liabilities incurred were, in their bulk, secured on the increase of productive capacity they enabled the borrowing countries to achieve. The borrowing countries were in the position of concerns issuing debentures with a view to increase their turnover and their profits, out of which part was earmarked for the interest and repayment of the loans thus contracted. Relatively to the national wealth and income, as well as to the Budgets of the States and of the municipalities contracting such loans, their amounts and the annual payments were moderate, even in the most heavily indebted countries. These payments, in the case of all international liabilities, public as well as private, were, as a rule, made by exporting goods either to the creditor country direct, or to other countries, the existence of a freely functioning world market permitting such settlements to be made with the greatest convenience to the parties concerned.'

During the post-war period, however, a fundamental change took place in this regard, and this principle of international stability was largely disregarded. As the Banking Committee, which met in Basle in August 1931, stated in their report, 'in recent years the World has been endeavouring to pursue two contradictory policies, in permitting the development of an international financial system which involves the annual payment of large sums of debts to creditor countries while at the same time putting obstacles in the way of the free movement of goods'.

The financial liabilities of debtor countries were during these years increased on an unprecedented scale, while some countries which before the war had been creditors now became debtors and vice versa. In the creation of the enormous structure of debts it is certain that little thought was given to the question of whether the debtor countries were likely to develop an export trade balance sufficient to meet the service charges on the debts, nor did the creditor countries pay much attention to the need for facilitating the payment of such debts by admitting the goods of debtor countries. The United States, the principal creditor nation, not only failed to make easy the payment in goods and services, but by the Hawley-Smoot tariff in 1930 raised a formidable obstacle against such payment.

This resulted amongst other things during the early stages in an exaggerated use of gold in the settlement of international accounts, and a still greater concentration of gold in creditor countries. Nevertheless I am inclined to doubt whether, had the United States pursued the opposite policy, lowered her tariffs and encouraged the imports of the goods of debtor countries, the position of the principal debtor countries would have been a healthy one—Germany would still have been a heavy borrower on foreign markets, and at any rate for the time being the difference between the credit balance on trading account and her external payments in respect of her foreign debts would have been made up by means of such borrowings. It was this that was to store up trouble for the future and ultimately to precipitate a financial crisis.

Germany has naturally been the centre of the picture in discussion of the international debt problem on account of the far-reaching effect of her heavy financial burden in the post-war years. It would, however, be both unnecessary and presumptuous for me to speak in detail on this part of the subject, since Dr. Schacht in his speech has done so, much more fully and authoritatively than I could possibly do. I shall, therefore, pass on to consider the position of other debtor countries, whose position by reason of the fixed interest payments due from them to creditor countries, became extremely difficult during the spread of the depression after 1929.

During the five years preceding the crisis world trade was growing rapidly, but it was growing in a curious and lop-sided way. The value of exports from the principal European exporting countries increased by about 18 per cent. Exports, on the other hand, from agricultural countries (excluding Russia) increased much less, being less than 1 per cent. higher in 1929 than in 1925, and only 4·4 per cent. higher than in the low year 1926. Imports of these agricultural countries were, however, expanding much faster than exports, having risen between 1926 and 1929 by no less than 11·7 per cent. With rapidly rising imports and slowly rising exports, the favourable trade balance of agricultural countries was, in consequence, diminishing and actually became a slightly unfavourable balance in the year 1929.

Now this had serious consequences, particularly in regard to the main group of agricultural debtor countries, namely Canada, Australia, New Zealand, South Africa, Argentina, and India, for we shall see that while their credit balance on trading account was diminishing, their debit balance in respect of interest and dividends was increasing. These countries were therefore exposed to a double tendency resulting year by year in an expanding debit balance on their total balance of payments. To show how this actually worked, I will quote the figures. The credit balance on trading account for these six countries (including exports of gold from the Union of South Africa) fell from about £154 million in 1924–5 to about £53 million in 1929–30. Balance of interest and dividends, on the other hand, rose from about £141 million in 1924 to £155 million in 1929. During the early years of this period the balance of payments was on the whole favourable, the balance on trading account being sufficient to meet their financial obligations.

After 1926, however, this position was radically changed as a result of the double tendency to which I have just referred, and the difference between the credit balance on trading account and the debit balance in respect of loans was made up by fresh borrowings abroad. Of a total amount of over two milliard pounds of new foreign securities issued during the five years 1924–8, nearly 60 per cent. went to agricultural countries mostly outside Europe.

The new borrowings undoubtedly widened the market in these countries for industrial products and were an important factor in the rise in international trade, as shown in the greater volume of imports by agricultural countries and of exports by industrial countries. But a situation in which countries could only balance their international accounts by fresh borrowings, if continued, was bound to become dangerous, and the fact that in 1928–9, a year of abundant harvests, the exports of agricultural debtor countries was only sufficient to meet about half their interest on external debts, suggests that it had already become dangerous.

Whatever may have been the initial cause of the world-wide fall in prices (and there is certain clear evidence that it had begun in the early part of 1929), the great stock market crash in the autumn and the psychological repercussion which followed gave it a tremendous additional impetus. The precarious foundation upon which the international financial situation rested soon revealed itself, confidence was shattered, and a vicious circle of deflation set in motion.

In Europe, Germany, and with her Austria and Hungary, became the centre of the crisis, for as soon as the flow of capital from outside ceased, she was faced with the necessity of meeting her current liabilities from the proceeds of her exports. By reducing wages and prices severely, and by drastic reductions in imports, she succeeded in paying her way in 1930, but with the continued fall in commodity prices the strain ultimately became too great and led to the financial crisis of 1931.

In regard to the overseas debtor countries, the position was not dissimilar, though certain influences attached to these which were not present in the case of the European debtor countries. The fall in prices of primary products, which had actually been in progress for several years, suddenly received an alarming acceleration, while in 1929 most of these countries had harvested poor crops, so that during 1929–30 they suffered a reduction both in the value and volume of exports, a double tendency which profoundly affected their balance of payments. To take the example of the Argentine, Australia, and Canada, the balance on trading account was converted from a favourable balance of $187 million in 1927–8 to an unfavourable balance of no less than $484 million in 1929–30. Nor was this all. It coincided with strained conditions in the world's capital markets following the collapse of the stock market boom in the autumn of 1929, thus adding to the difficulties of maintaining the flow of foreign capital. Professor Timoschenko attaches great importance to the coincidence of these factors in contributing to the world depression, because it meant that agricultural countries were not only faced with difficulties in obtaining new loans on account of the capital stringency in industrial countries, but they were in need of increasing their foreign borrowings on account of the poor crop (and therefore reduced volume of exports) in 1929–30, in order to balance their international payments. In the six countries, Canada, Australia, Argentina, India, South Africa, and New Zealand, not only had the trade balance dropped from a credit to a debit balance of $482 million in 1929–30, but to this must be added the net fixed interest payments due from these countries of $772 million.

This double burden led to crisis; an outflow of gold occurred from several of these countries and both the Argentine peso and the Australian pound had fallen to a substantial discount by the middle of 1930. Debtor countries practically the world over, in view of this convergence of adverse factors, were forced to take such action as they could to improve their balance of payments, and in most cases this action took the form of drastic restrictions of imports coupled, as is well known, in many cases with control of exchange. In the case of agricultural countries, however, even the drastic reduction of imports in 1930 failed to bring about a sufficient improvement in the trade balance, and in the meantime the confidence of investors abroad had been severely shaken, the flow of new capital (the one remaining means of balancing their international payments) was in consequence sharply restricted and ultimately ceased altogether.

The counterpart of the customs restrictions imposed by agricultural countries upon imports of industrial products was the restrictions imposed by industrial debtor countries upon agricultural products. But restriction breeds restriction. The inelasticity of supply of agricultural products as a whole meant that notwithstanding the rapidly contracting import demand, supplies continued to be thrust upon the world's markets, with the result that prices continued to fall; in time the fall in prices forced country after country to revert to protective measures in the interests of their own farmers and peasants. The United Kingdom, the great free-trade market for the world's exportable surplus of primary products, finally succumbed to the pressure and adopted a protectionist policy at the end of 1931.

It would be impossible in this paper to follow out the sequence of defensive measures adopted by the various governments to protect their domestic, financial, and monetary positions; it is sufficient to note that trade restrictions imposed for financial reasons were in this way added to those already in force for the purposes of industrial and agricultural protection. The great network of impediments thus created led to a severe contraction in the volume of international trade and therefore of production, and therefore of national incomes, and therefore of demand for goods, and therefore gave a powerful acceleration to the forces of deflation already at work.

To quote the English economist, Mr. R. G. Hawtrey:

> 'The shortage of demand that arises at a time of depression may be described simply as a shrinkage of consumers' income and outlay. Incomes are derived from production; they are paid out of the proceeds of sale of the goods and services produced. The shrinkage of the consumers' income is itself the result of the shrinkage of these proceeds of sale. The shortage of incomes results from the shortage of demand, and the shortage of demand results from the shortage of incomes. That is the vicious circle of deflation.'

We can now turn to the effect of these events on agricultural prices.

Two years ago it was common to attribute the fall in agricultural prices to over-production, and even to-day one not infrequently hears such views expressed, while statesmen have recently been greatly preoccupied with the question of how to bring about a restriction of production on an international scale.

That the fall in prices is primarily the outcome of a fall in demand, would not be a very rash inference to draw from the fact that at the beginning of 1933 there was estimated to exist in the world a population, including dependents, of over 100 million people, equal to the combined population of Great Britain and Germany, who were unemployed and therefore unable to purchase their food and clothing with the products of their own labour. Let us now look at the figures.

According to the League of Nations Review of world production, the index for crude foodstuffs (based on average 1925–9 = 100) rose from 98 in 1925 to 103 in 1929 and was estimated at 103 in 1932. For all agricultural products (which includes tobacco, vegetable oils, textiles, and rubber) the index rose from 98 in 1925 to 104 in 1929 and fell to 102 in 1932. Now in considering what would have been the 'normal' demand but for the depression, we must have regard to the normal state of growth of population and the normal rise in the average standard of living in terms of foodstuffs.

In a paper read before the Academy of Political Science in April 1931 Carl Snyder makes the following remarks:

> 'This seems to be the first era in the World's history to achieve for a very broad extent of the population, a genuine adequacy, a fact whose important bearings were first pointed out by Simon Patten, one of the ablest economists America has produced. But this exists only for a limited part of the World's population, hardly a third of it. Therefore, there seems little reason to suppose that for a long time to come the rate of increase in food production (about 2½ per cent. per annum) will materially change. Gradually through this increase the World's entire population, which probably gains at less than 1 per cent. per annum, will acquire enough food for what the Western World considers adequate subsistence. Widespread starvation, once a universal characteristic, intermittently, for all the peoples of the earth, and still so for more than half of them, will slowly disappear.'

This seems to me a true and too often forgotten view of the essentially expanding character of the world's food production. If this rate of expansion had actually occurred since 1925, the index of foodstuffs in 1932 would have stood at 114 instead of 103. Even if there had been no rise in the standard of living it would have stood approximately at 105. Making allowance for the necessarily approximate character of the indices, the inference they suggest is that there is already some shortage in world production of foodstuffs, on the basis of what would be demanded if the world's urban population were normally employed, mitigated, of course, in the case of certain commodities by the accumulation of stocks.

There are, of course, certain reservations to be made to this general view of the situation, but I do not think that it alters the main conclusion which I wish to draw, namely that the low level of agricultural prices is the outcome of a decline in demand (itself the result of the deflationary forces to which I have alluded), and that these deflationary forces have received tremendous acceleration as a result of the situation of debtor countries, and the restriction on trade which have resulted from attempts to maintain the balance of payments of these countries. This last, I suggest, is the outstanding feature of the present world depression in contrast with the depression of the past.

Such, it seems to me, is the inter-connexion between 'International Debts' and agricultural prices. The picture I have drawn represents what is essentially a deflationary vicious circle—in reality more detailed and more complex than I have had time to describe. If this diagnosis is correct, then the true remedy, it seems to me, is not one of specific treatment of the symptoms one by one as they have developed, but one designed and expressly aimed at breaking through the vicious circle of deflation—at least for the time being—the reverse trend, with the ultimate objective of stabilization after some recovery of prices has occurred. This is the difficult, complex, perplexing, but all-embracing economic problem which still confronts the world.

DISCUSSION ON INTERNATIONAL MONETARY AND CREDIT PROBLEMS

S. SCHMIDT, *University of Cracow, Poland.*

Referring to Dr. Warren's paper I should like to ask a question: Our country, Poland, is practically the only one of the East European peasant countries that is still sticking to gold. I do not need to tell you the sufferings of our agricultural population. They are far greater than in Germany; that is the reason why at the time Great Britain went off gold I shared the opinion that Poland should also depart from gold. But, for political reasons rather than for economic reasons, this was not done. In the meantime the situation changed entirely, still greater restrictions came into force and higher and higher tariffs on manufactured goods were introduced in our country. Thus I wonder, whether under entirely changed conditions and closed markets it will still be a remedy for agriculture in our country to follow the course which has been taken in the United States. I am afraid it would not, and I presume that the prices of manufactured goods would be the first to rise. So I should like to ask Professor Warren what he would recommend for our country.

E. M. H. LLOYD, *London.*

I should like to start by congratulating Dr. Warren on having first interested this International Conference of Agricultural Economists in monetary problems. At the Cornell University Conference in 1930 it was agreed that agricultural economists could not afford to be indifferent to monetary conditions. There were some dissenting voices even then, but they have not been raised at this Third International Conference. At Cornell University the view that the world crisis was primarily due to over-production of agricultural products was defended, but that theory has not been defended during this Conference. So we can say we have made progress. Also we have not heard it suggested that restriction in production all round is any remedy for world-wide depression. Dr. Schumacher in his admirable and lucid paper has expressed a view, which has received very general assent, namely, that purely national policies can afford no solution to the monetary crisis. The break-down of the gold standard is an international problem and must find an international solution.

I should like in a few words to refer to the Conference held at Genoa over ten years ago and to the resolutions there passed by thirty-two Governments on the question of international management of the gold standard. At that Conference there were a number of European economists, including Professor Cassel of Sweden, Mr. Keynes and Mr. Hawtrey of Great Britain, who took counsel with representatives of Governments and considered the dangers likely to attend the restoration of the gold standard after the War. It seemed to them that either there would be a tendency for countries to economize in gold by adopting the gold exchange system, and thereby to depreciate gold unduly—this was in fact the danger which appeared more real at the time—or, alternatively, if all countries insisted on having large gold reserves, there might be excessive competition for reserves, resulting in a scramble for gold and an undue appreciation in the commodity value of gold. The Conference therefore adopted a resolution to the effect that it lay within the power of the Central Banks to influence the commodity value of gold, and that it was desirable that, by co-operation and concerted action, the Central Banks should take steps to prevent undue fluctuations in the purchasing power of gold. The problem which was then envisaged has become far more acute than was realized at the time owing to the vast increase of indebtedness, including political debts, to which Dr. Schacht referred this afternoon. On the other hand, the proposals for co-operation and concerted action between the Central Banks of the world have proved far more difficult to realize than appeared probable at that time.

We may take it, then, that part of the crisis may be attributed (as Mr. Enfield has quoted from the Report of the Macmillan Committee) to the failure of the monetary system to adapt itself to deal with non-monetary disturbances.

Let us simplify this issue of the value of the gold, which after all represents the level of gold prices. The value of gold, like everything else, depends on supply and demand, but the supply of and demand for gold are unique. Both are predominantly under the control of the Central Banks. The supply of gold consists of over £2,000,000,000 of gold stocks. The annual production of gold is relatively unimportant, being less than one-twentieth part of the stocks. These stocks are virtually confined to the vaults of the Central Banks. On the other hand, under post-War conditions when gold coin is no longer in circulation, the demand for gold emanates primarily from the Central Banks. They have, therefore, almost a monopoly of the supply, and subject to the limitations imposed by legal restrictions and the pressure of outside events, they control the machinery through which demand is exercised. Is there then no hope that concerted action on cartel lines may prove possible between ten or twelve or even six of the largest Central Banks of the world? By acting together they should be able to do a great deal to prevent undue changes in the value of gold; but that possibility has, not yet at least, been realized.

The policy, which every country has adopted, has been the policy of deflation. As we have now cause to realize only too bitterly, and have heard from every speaker to-day, the policy of deflation in accordance with classical theory has proved to be socially and politically impossible. The alternative policy of devaluation has been adopted in a sense by the United Kingdom, by the United States, by many of the British Dominions, by Czechoslovakia, and by Austria. In the case of the United Kingdom the depreciation of sterling in terms of gold was not accompanied by any rise of sterling prices, as was feared at the time. The United Kingdom went off gold with a 6 per cent. Bank rate, and measures were taken to prevent any expansion in credit which might lead to a rise in sterling prices. The result was a further fall of prices in those countries which still remained on the gold standard. Devaluation, therefore, at any rate as practised in the United Kingdom is no solution of the world crisis. In Australia, one of the few countries where experiments have been carried out under the guidance of economists, a measure of deflation was carried through combined with subsequent expansion of credit and depreciation of the Australian pound. From the point of view of Poland I would suggest to Dr. Schmidt that it would repay him to study the experience of Australia and the writings of Professor Copland. The crisis there has certainly been mitigated by the policy of devaluation.

What may be called the monetary school in Great Britain, in the United States, and the British Dominions have advocated a policy of controlled inflation. But controlled inflation is extremely difficult to carry out in one country alone. It requires concerted action between two or three large countries.

At the World Economic Conference held just over a year ago, there was great hope that the British Empire and the United States would see eye to eye on the necessity of raising prices by a measure of reflation. It was also hoped that the gold bloc might have been brought to see the desirability of avoiding the necessity for further deflation. But as we all know, it was impossible to get agreement, either between the sterling bloc and the gold bloc or even between the sterling bloc and the United States. Reflation requires an active open market policy. In the United States they have also gone forward with a policy of public works and public expenditure. That finds less favour in England because it was tried in years when the Central Bank was deflating. In Great Britain we are not yet quite sure enough of ourselves to have a deliberate budget deficit.

From the point of view of recent economic theory there is a case for having a budget deficit under certain conditions, though according to the classical theory the State budget should be balanced every year. Is there any reason why? Why not every week, every month, every quarter? Is there any special economic significance in the period of twelve months? The answer is no. What is significant is the period of the trade cycle. It may sound theoretical to suggest that the budget should be balanced over the period of the trade cycle. What is sound in theory is not always practicable; but at least we need not assume that it is always necessary from the standpoint of sound finance to balance the budget every twelve months.

Another policy that has been much discussed is concerted action to economize in gold. Unfortunately the world crisis has led to

Central Banks becoming eager buyers of gold but unwilling sellers. Central Banks have set the example of hoarding gold, and this is being followed by private individuals. The more the world becomes a 'bull' of gold, the more the vicious circle of falling prices will be accentuated.

Looking farther ahead, suggestions have been considered in influential circles for developing the Bank of International Settlements into something of the nature of a Reserve Bank for the world. Unfortunately public opinion is not yet ready for such a step. We realized the mistakes of the reparations policy and began to alter it when it was too late. We are now considering remedies which might have solved the crisis in 1930. To-day the possibility of a Reserve Bank for the world appears visionary. But if what Dr. Schacht is foretelling comes true, we may in a few years regret that we did not act before it was too late.

It is disclosing no secret to refer to an article by Mr. Keynes early last year, in which he advanced an ambitious scheme for remedying the world crisis. The principal Governments of the world were to agree that the Bank of International Settlements should be given authority to issue up to £1,000,000,000 worth of gold certificates, which by international convention would be accepted as legal tender and the equivalent of gold in all the territories of the contracting parties. I mention that as a possible scheme that still merits the attention of economists.

I welcomed Professor Dijt's lecture this afternoon because he was not afraid of new ideas. In the bankruptcy of traditional systems it becomes important to examine all concrete proposals which claim to be sound theoretically, so long as they are not entirely visionary.

I have been thinking of the problem of how the United States is to get rid of its gold. What are they prepared to take? The United States might exchange some of their surplus gold for tin, for rubber, and for silk; if they had no immediate use for them they might at least hold them as stocks. In the long run it might prove a profitable deal to corner the world's tin. But there are limits to what she would be willing to take. I therefore suggest to Dr. Warren that he should remind his country of what he told us this morning. He said that when he was a young man American students came to Germany to learn their science and to England to learn their humanities. Why not resume this admirable arrangement? If America does not want our goods, let her buy our education. £100,000,000 of gold would be enough to buy quite a lot of science from Germany, and even, if she still wants them, some humanities from England.

I submit the following summary in conclusion:

- (i) I do not believe that we can look to the restoration of the automatic pre-War gold standard. That would be my only criticism of Professor Schumacher's admirable paper.
- (ii) I do not think we can look to the restoration of the traditional Cobdenite free trade.
- (iii) In these circumstances planning of some kind must replace *laissez-faire.*
- (iv) The planning must continue to be, as it is now, predominantly based upon nationalist policies; but nationalism by itself is not enough.
- (v) National policies must so far as possible be reconciled in a higher synthesis of international organization.

We can at least begin to study this vast problem at Conferences such as this.

DR. SOLMSSEN, *Berlin.*

May I draw your attention again, ladies and gentlemen, to some fundamental points which were put forward in the fine speeches of Professor Warren and Dr. Schacht, and which in my opinion must be the directing principles of any measures that are to lead to better relations. Both Professor Warren and Dr. Schacht have pointed out that the crisis with which we are faced is one arising out of capitalism, and that, if it cannot be surmounted, those destructive forces which in the form of Bolshevism are resisting the evil brought upon the world by overstrained capitalism, will gain the upper hand. The best way to grapple with these accumulated problems is to apply to them commercial accountants' laws, and to seek the measures which are to restore capitalism to health in the nature of capitalism itself. The essential aim of capitalism is creative prosperity. The capitalist system aims at economic gain, and produces something new by uniting natural products or forces and man's work; that is to say, it achieves a higher value than existed previously. The fact that capitalism has come to be the principal channel through which the general economic life of the world flows is mainly to be accounted for by the Promethean inheritance of mankind, which makes joy in creation man's chief delight. If this is the nature of capitalism, the Great War sinned against it. The War brought nothing new and creative into being, but merely destroyed what already existed. This is obvious from the figures alone: the total amount spent on destruction by all the powers taking part in the War came to approximately 1,000 milliard gold marks. The belligerent states borrowed about

580 milliard gold marks of the sum, and left the repayment of this colossal amount to the future. The smaller part of the sum was swallowed up by the collapse of the lesser powers and by the German inflation. About 50 milliards of foreign war debts were cancelled in the course of mutual debt settlements of the allied powers. The rest, together with the remaining internal debt, amounts to 210 milliard gold marks. These war debts, considered from the point of view of capitalism, constitute an unproductive investment. Their annuity burdens world economics without giving any counter-value, and lies like a prior mortgage on everything produced by the states encumbered with these debts. It increases their production costs, and in attempting to reduce these they resort more and more to technical measures which cut out human work and so continually increase unemployment. Further, the rivalry of the nations in reducing production costs strengthens the impulse to protect home products from the competition of cheaper foreign goods; and this impulse is increased too by the necessity of keeping active as far as possible the production capacities developed to a very high degree during the Great War. All these crimes, resulting from the War and war politics, against the axiom of productivity as the basis of the capitalist system inevitably caused a partial breakdown of the system.

For Germany this state of affairs is proving disastrous, for on this country particularly lies the burden of debt left behind by the War, and she is collapsing under the weight. Germany was forced to agree to the transformation of political debts into private debts, and thus was made responsible to all those who have become creditors of the Dawes and Young Loans.

But what is the position when we regard this procedure from a commercial point of view? Both the Dawes and Young Loans are based upon assessments as to the amount of reparations to be paid by Germany, and the ability of Germany to undertake these payments—assessments whose accuracy Germany has never recognized, but rather denied with vehemence. The responsibility for these figures therefore does not lie with Germany, but with those who enforced their acceptance. And so from the bankers' point of view it is not Germany, the debtor-state, which is responsible for the accuracy of the prospectuses of the Dawes and Young Loans, but the representatives of the creditor countries who planned these loans. If this view is accepted, it follows that the settlement of the German debt, which has been proved impracticable, must be dealt with by the conversion of private debts back into state debts; that is to say, that those countries which are receivers of reparations must pledge themselves to their subjects to bear the loss resulting from guaranteeing the prospectus. Such a course would remove many seeds of discontent arising from the fact that all holders of shares in the Dawes and Young Loans account Germany responsible for the impossibility of transferring the service of the loan and for the way in which this still unsettled debt burdens the economic life of the civilized world. It is indeed time that people stopped trying to justify the fantastic sums which were to be produced by Germany as war reparations. It would be to no one's discredit to admit that these figures were wrong, since they have already been altered so frequently and, against the will of their originators, continually reduced owing to force of circumstances. The sooner this matter is regulated, the sooner will that confidence return which is the first condition for the successful functioning of all national and international capitalist economic activity.

A. W. Ashby, *University of Wales.*

In spite of a suggestion that Utopians may be classed with criminals as enemies of Society, I have no hesitation in saying that I am a Utopian, and that I do not regard myself as an enemy of society—when society really includes all the human beings who support it and live under it.

Utopians—or at least people who are not bound by class interests or by social and economic custom—may yet have a contribution to make to the solution of the problems of international debt. After all, any one who had fourteen years ago predicted the wide cancellation or partial cancellation of debt which has already occurred would have been regarded as a wild Utopian.

It may be suggested that the poverty which appears to have arisen from foreign lending and borrowing, especially borrowing, is less real than appears on the surface. Many countries now in difficulties are physically well equipped for production and transport of goods. Only poor or weak financial arrangements stand in the way of production and distribution of adequate supplies. We establish protective systems to guard us against the effects of borrowing and lending and of exchange variations, and then these systems intensify the general evil conditions. Wild finance, especially political finance, tariff protection, economic dislocation, all hang together. The chief troubles have arisen from financial dislocation, and in that sphere—with tariffs, we have to start cleaning up the mess. But cancellation or reduction of debts, merely to assist further borrowing, will not make much improvement. We have to find some new ways of controlling and using finance, and probably some new ways of conducting international trade.

The agriculturists of creditor countries tend to be peculiar sufferers under the processes of foreign lending. This is because loans up to 1913 were very largely made to raw-material and crude-food producing countries, for the purpose of enabling them to develop their land, transport, &c., for production on these lines.

British loans were specially made to food producing countries—Argentina, Australia, New Zealand, &c. Consequently a large part of interest payments and capital repayments has been and must be made in foodstuffs.

Farmers gain through a stimulus to industrial employment and to consumers' demand while loans are being made.

When interest comes in, or repayments are made, there is no need to export to pay for a portion of the imports of foodstuffs. Unless there is further foreign lending, exports tend to diminish, industrial employment tends to diminish, and the markets for food tend to be restricted. The food producers of the lending and food importing country suffer both from competition of imports and from restricted markets.

It happens that the particular people who receive payments in respect of foreign loans are frequently seeking reinvestment rather than spending their receipts on consumers' goods, and since the War a great part of that reinvestment has not been in productive goods, but has been in the finance market. It was mainly through conditions made by political settlements that reinvestments did not stimulate our industrial production system and therefore did not stimulate food consumption and agriculture. At any rate, in Great Britain and some other European countries which are more or less in the same position, farmers have a big interest in this process of foreign lending and the subsequent rate of interest payment and capital repayment.

In U.S.A. the problem is different in some degree. Loans were made largely to industrial countries. Industrial products have to be accepted for interest and repayment, while the tariffs on manufactured articles make payment somewhat difficult. But farmers suffer there also, because they cannot export produce.

The process of restarting foreign lending which has been suggested as one of the chief ways of lifting the British industrial depression will not in the end give us the result we require. It would, of course, give temporary ease if the process were in effect that of sending loans from industrial countries to the backward countries, in the form of industrial produce. That would again create employment and demand for farm produce. But as soon as repayment starts we must again get into the position of having certain markets of food depressed by the repayment in the form of foodstuffs. This is the position while individuals make the foreign loans. If they were really made by a nation, and the nation as such received interest or capital repayment, the effect would be changed to some extent.

We in Great Britain, having such a big concern in the one side of this problem, have had the suggestion made that we should regulate the imports of at least some of the foodstuffs by a State Import Board, and that suggestion has been made from more than one political quarter. It is not at all unlikely to be followed in the quite near future. I would say that if we move to that position we will also move to another position, that of State supervision or State regulation of capital investments, especially of capital investment in other countries or foreign loans. We might also move to the position of State Export Boards and the rule of foreign exchange, practically speaking, by barter of goods for goods. In those ways we could set up a system of international trade which would be economically satisfactory. We could also pursue planned national development, including that of agriculture, alongside the development of international trade.

G. F. WARREN, *Cornell University, N.Y.*

When there is so much difference of opinion, I think it is important that we agree on those particular facts which arithmetic can demonstrate.

I would like to call attention to a few figures on gold production. From 1847 to 1849 world gold production doubled in two years. From 1849 to 1852 it doubled in 3 years, the next time it took 50 years to double and in fact at the end of 39 years it was not even equal to what it had been 39 years before. From 1890 to 1897 it doubled in 7 years, from 1897 to 1915 it doubled in 18 years, so gold production has the erratic record of doubling in 2, 3, 50, 7, and 18 years. What other commodity could you enumerate, the production of which was so erratic?

World gold stocks doubled from 1848 to 1859 in 11 years, they doubled again in 37 years, doubled next time in 19 years, but the world's physical production of goods proceeded very uniformly while the world's monetary stock of gold doubled in 11, 37, and 19 years.

I should like to ask Dr. Schmidt, can Poland refrain from raising the price of gold? You know what Germany has done, she has raised the price of gold by informal means by selling marks at a discount.

As to Mr. Lloyd's question, it was not the purpose of my paper to go elaborately into the details of why gold rose in value. Mr. Enfield enumerated a few of the reasons. I think that innumerable world circumstances were at the back of the rise in the value of gold and that banks could not do much about it. In other words, they could not make it cheap.

NEW TENDENCIES IN INTERNATIONAL TRADE POLITICS

E. WINTER

Headquarter's Staff of the Peasant Leader, Berlin

THE discussion as to the nature of the world economic crisis, the course of which is displayed with cruel matter-of-factness by export statistics, may now be regarded as decided. It has nothing to do with those periodically recurring market cycles which can be rectified by another turn of the wheel, but results from the so-called world economy which (and this seems to be the general opinion) has been destroyed by a defect in its structure, and consequently economic co-operation can only be renewed by escaping from this structural defect. The more exactly and intensively this defect is studied the greater is the hope of rebuilding a new and solid structure for the future.

It is not sufficient, therefore, to regard the raw material crisis as the cause of this break-down, which made a sharp cleavage between agricultural and industrial prices, and resulted in a catastrophic diminution of purchasing power, in a far-reaching stoppage in production, and in a state of unemployment hitherto unheard of. It is not sufficient either to throw all the blame on the Great War, though it did destroy the economic and financial balance and has caused, by the abnormal development of new industries in the so-called market countries, an intensification of competition and, at the same time, a restriction of the market. There is no doubt that the War has accelerated this state of affairs which has so completely upset the statesmen and captains of industry, but this state of affairs was bound to come without the fatal years 1914–18. The roots of this break-down and of the destruction of the world economic system lie much deeper and go back for centuries.

The discussion of the crisis on all sides and in all countries has, with general agreement, shown that the farming population, for whom so little regard, if any, was shown in the times of prosperity, has always been and still is the foundation of the political and economic structure of both the European and overseas countries. Any one looking at the historical development from this point of view will find more and more that right up to the eighteenth century the peasant foundations and the agricultural basis remained more or less unchanged, and I need not go into the different forms this development has taken in the various countries.

One thing, however, is certain; the expansion of the European horizon, the colonization of the overseas countries, America, Australia, New Zealand, and South Africa, has been achieved by peasant means; the new white peoples in these areas are rooted in the European farming population. Historical events which took place in the Middle Ages in eastern and central Europe have been repeated on a gigantic scale, namely, the formation of a new peasantry favoured at that time likewise by German and Slav rulers.

The intrinsic idea of every peasant colonization is the union of people and soil, and the cultivation of the soil for the preservation and increase of man attached to the soil. It is the historical significance of Oliver Cromwell, the Lord Protector, himself a country squire, that he pointed out to the Anglo-Saxon farmers the way across the seas, and by that means laid the foundation of the British Empire and of its offspring, the United States of America.

In the eighteenth century, however, a new era commenced, namely the penetration of Liberalism in all parts of the political, cultural, and economic life, and consequently the conception of the autonomous importance of the individual, having the right to live according to his might without the slightest consideration for the community. Thus in an economic world, which up till then had thought and acted more or less from the point of view of the farming population, a new ideal was created, namely, unrestrained enrichment and accumulation of profits, while all other factors, such as the soil, were nothing but ways and means to this end.

Thus industrialization, helped by mechanical inventions, grew, and its ever increasing production could only be consumed by the continuous opening up of new markets. It swept agriculture with it and in order to obtain the raw materials for its finished and semi-finished goods and the foodstuffs for the swelling millions of workers who had lost contact with the soil, industrialism changed agriculture in many countries and especially in the New World from a system of producing for domestic consumption and for the needs of immediate neighbours to a complete system of production for the market.

This method of economic development destroyed the economic organization of the various countries. Agriculture, industry, and trade were carried on solely for their own sake, to achieve the amassing of money and power, without the slightest thought for the necessities of and the harm done to others. In the shape of the modern captains of industry this tendency has found its realization. Its unconscious model was the *condottieri* of the Middle Ages and the Renaissance. In exactly the same way as the *condottieri* knew the art of war and everything which had to do with the art, in the same way as these *condottieri* developed their occupation to a fine art, so the captains of industry have become supreme experts in all methods of trade in order to win the great battle of competition. Both *condottieri* and captains of industry, however, followed their vocations for their own sake, for the increase of their own income, and in no way in the service of an ideal.

This development was doomed to break down at the moment that the expansion of the markets reached its limits. The industrialization of these countries during the War accelerated the end. The famine in all kinds of goods caused by the War, and the glut in credits, postponed this end for a number of years. In 1929 the great break-down became inevitable and the thought which may have passed through the mind of many economic *condottieri*, 'Après nous le déluge', was realized and a deluge of distress inundated the world. In repetition, I may say that the cause of the break-down was to be found in the ridiculous increase in agricultural and industrial production without any consideration of the possibilities of consumption, and in the artificial inflation of trade with its attempt to disregard all the laws of dimension. At the same time the purchasing power was diminished by reduction of wages and the prices of raw materials and by the replacement of human labour by machines, and the number of customers essential to the upkeep of the system grew smaller and smaller.

When all predictions of the end of the crisis failed and, on the contrary, one country after the other was drawn into the whirlpool, nobody wanted to give in to the terrible catastrophe without putting up a fight and, together or alone, remedies were sought after. The London Economic Conference was the last and unsuccessful attempt to master the crisis by combined effort. Its absolute failure set, as it were, the official seal to the fact that world economy and world trade had completely broken down.

In 1932 the attempt was made by the British Empire to solve the problem by a regional agreement between the home country and the colonies with a system of commercial preferences. This pact, usually called the Ottawa Agreements, has certainly had the effect of preventing a further diminution of trade between the home country and the Dominions. Built, however, as they are, on the principle of division of labour, namely, export of raw material and foodstuffs from the Dominions, and of manufactured goods from the home country, they have brought a great disadvantage to the latter, for while the Dominions have given preference to the imports from the home country by reduction of tariffs, without sacrificing their own industries, agricultural interests in Great Britain have been sacrificed, and it is the great problem for the present Minister of Agriculture, Mr. Elliot, who is anxious to save and strengthen English agriculture, to fit these tendencies into a new and revised Ottawa Pact.

In the U.S.A., a country which was attacked by the great world crisis later but more terribly than others, President Roosevelt has gone on new lines; production is to be diminished by agricultural planning, and part of the farming population which hitherto operated entirely for the market is, under a new settlement scheme, to be organized in so-called manufacturing villages, where it will find its livelihood partly in agriculture and partly in manufacture. The devaluation of the dollar, which had the object of easing the debt burden and of restarting the wheels of industry, has already lost its effect, the price disparity between the products of industry and agriculture is still not adjusted, and the dependence of the prices of agricultural products on the fluctuation of the exchanges with their natural and artificial factors remains a continuous menace to the grand scheme of President Roosevelt. One of the greatest dangers, however, the problem of disposing of the surplus of export commodities, necessary even in years of a normal harvest in spite of all restriction of cultivation, is still a problem of grave consideration, especially to the Secretary of Agriculture, Mr. Wallace.

These various problems of the world crisis: the convulsion of the foundations of agriculture, the problem of unemployment, the destruction of the network of foreign trade relations, are problems which had also to be faced by the National-Socialist Government of Germany. The German idea and the German system of mastering these problems are fundamentally different and are consciously pursuing quite another line.

In like manner to the U.S.A., the German Government started with the idea of first putting its own house in order. For this reason, first of all, the farming population had to be saved from utter ruin because the new German Government—and this view is held in other countries as well—sees in the farming population the economic and biological foundation of the state and the only actual guarantee for its existence. This has been achieved by two fundamental laws, the Law of Hereditary Farms (*Erbhofgesetz*) and the *Reichsnährstand* law, both of which have the tendency to set agricultural property and agricultural production apart from the capitalist economic system and thus to safeguard them. The Law of Hereditary Farms makes it impossible to buy or to sell a farm, to mortgage it, or to bring it to a forced sale.. By this means the land is no longer merchandise, which it had become by the practice and by the laws of the economics of the liberal period. By the condition that the land can only be inherited by one heir and that the others may obtain a home but no compensation, the size of the farm as well as its possibility of production remain completely unchanged.

The farming production is taken out of the capitalist system of economy by regulations which replace the prices determined by the exchanges by an economically sound and just price for all products destined for the market and not for immediate consumption on the farm. This is made possible by the *Reichsnährstand* law which has merged the farmers and those parts of industry and trade dependent on the farming population into one big organization. The sub-title of this law, namely, 'measures for the regulation of markets and prices of agricultural products', shows how, in this organization, the aim of achieving a price which is a fair return for labour and expenses incurred by the farmers is attained. This system does not mean planning, as it is not official interference with the form and extension of agricultural production. It means nothing more than a firm control by a centralized organization of all factors interested in this market. This control is made possible because the whole *Reichsnährstand* is subdivided into regional organizations which regulate the sale of agricultural production, corn, dairy produce, fats, eggs, cattle, &c. The surplus destined for the market is controlled by a government authority, through which it is possible indirectly to influence the quantity and quality of production, as the whole output can be brought on the market only if it has been registered with this government authority and a certificate of acceptance has been issued. As these bodies are under no obligation to issue certificates for all commodities and for all quantities of them, they can prevent a flooding of the market. On the other hand, as the demand must be registered with the government authority, there is a possibility of interchange between surplus and deficit territories. There is also the possibility—to which I draw your special attention—of an exact control of the quantity and quality of food which must be imported from foreign countries.

You will realize, therefore, that there is absolute control of the market and a possibility of preventing fluctuations caused by too big or too small an output, and also a possibility of fixing prices at a level fair to both the producer and the consumer.

The internal regulation of markets and prices in Germany has by no means been only for the purpose of national self-sufficiency. On the contrary the German Government has used it for the successful reconstruction of trade relations with foreign countries. The German Government has not chosen the method of calling a conference of all states concerned in the market, or of those grouped together in a natural economic unit, but has chosen the method of negotiation which may be called bi-lateral. In the same way as it has been done in Germany itself, the German Government has taken foreign commercial relations in hand from the point of view of agriculture and has found in the economic difference of agricultural exporting and importing countries the possibility for successful negotiations. So long as Holland, Switzerland, and especially eastern Europe from the Baltic to the Black Sea are reckoned as agricultural exporting countries, Germany, with its present standard of living, will hardly ever reach self-sufficiency in normal times, although every possibility for safeguarding the supplies from home production is used. If, however, the country is forced to greater self-sufficiency, then this will always be at the cost of imports. In the ordinary run Germany will always remain a food-importing country and will be able to help the agrarian states of Europe to get rid of their surpluses. But on no account must our own agriculture be damaged—as is the case with British agriculture under the Ottawa Pact—in the sale of her production and by prices, nor the security of the internal German market be shaken. This will be avoided if all foreign imports come under the German market regulations and are subject to the same limitations and, as compensation, enjoy the same guaranteed advantages. For, as I said before, the kind, quantity, and timely limitation of all desired or possible imports can be determined by the government authority, and under these conditions certificates similar to those issued for inland goods may be issued for a limited period for imports from outside the customs boundaries.

In such cases, the sale of these products must take place at the fixed prices of Germany's internal market, so that the world market prices determined by the exchanges which may still be valid outside Germany have no effect on the agricultural products brought to Germany from foreign countries.

This procedure will, in my opinion, be a guide for the future; for the supply of non-German markets which are still under the sway of the world market is in part only possible by the issue of export bounties, which are given in Poland for grain, and in the Baltic States and Switzerland for all dairy products. While, therefore, the trade with Germany yields a fair price—and thereby raises the national income—the farmer in those countries with export bounties can only exist through government subventions which the general public has to bear. The Baltic states have realized that in spite of an increase in supply to the British market a decrease in monetary values is recorded.

German National Socialism carries the motto 'Patience' on its banner and makes its calculations for a distant future; in the same way as the importance of the farming population, which National Socialism realized long ago, is now everywhere being accepted, so it can be taken for granted that internal regulation of the market and of prices will some day be recognized as a matter of course.

It almost goes without saying that these bi-lateral agreements are formed entirely on the basis of 'compensation' and that Germany pays for its agricultural imports with manufactured goods. As the above-mentioned difference in prices between the world market and the German market is to the advantage of foreign farmers, and as in this way an increase in their purchasing power can be produced, an economic cycle is started which may go on developing more quickly and intensively, for the increased purchasing power on the one side will have a reviving effect upon industry on the other. The increase in the standard of living of those employed in industry and commerce will react to the benefit of their own agriculture and at the same time make a higher rate of foreign imports possible.

Thus this new method of commerce differs fundamentally in two main points from the former method. It is built not upon the system prevailing during the 'liberalist' period of supply and demand artificially created by advertising, but upon the real requirements of a country as determined by the close study of the market combined with an orderly marketing system. That those industrial products exported by Germany under the compensation agreement to other states also satisfy a real demand, every one will understand who has studied, for example, the state of affairs amongst the farming populati onof eastern Europe. In addition, the foundation and development of home industries as desired in agricultural countries, and the extension of transport facilities equally important for agriculture, industry and trade in those countries, can only be attained by these means.

The principles of Germany's internal legislation connected with the *Reichsnährstand* have been applied with great success to foreign trade relations. Orderly co-operation has replaced competitive struggles and unbridled disorder. To produce, to keep going, and to extend this procedure successfully is the duty of commissions which consist of men actually engaged in these matters, producers, manufacturers, and representatives of traders in both countries, and who meet to discuss together the supply for the market, the allocation of quotas and the actual prices. That this system of working together and the merging of the separate national economic interests can work successfully is shown by the readiness of Polish, Hungarian, and Yugoslavian agriculture to adjust their production in accordance with the requirements of their German trade-partner by increasing their production of oil-fruits, flax, and wool, as Germany is and will continue to be a good customer for these products.

Furthermore, the trade agreements have followed the German internal model of inviting the co-operation of the honest traders who are necessary in the national economy for the movement and distribution of goods and have allotted to them a profit in accordance with their service. But all irresponsible and unjustifiable traders are to be eliminated, who would love to pocket the already mentioned difference between the prices on the world market and the German market, while the farmer would go empty-handed not only to his own loss, but also to the detriment of the economic conditions of both countries concerned. Above all, it is entirely in keeping with the spirit of the *Reichsnährstand* that the trade agreements should be discussed by the farmers' representatives and a decision arrived at in a manner desired by both countries.

The first almost timid attempts at an approach to the farmers were undertaken at The Hague, when in November last the trade agreement between Germany and Holland was about to be closed. But this novel method proved particularly satisfactory in the regulation of the economic relations with Poland and, through the negotiations of the farmers' leaders, the way to the transition from trade-war to collaboration was found. Shortly before the new Polish tariff was to come into operation, the representatives of German agriculture offered to bring the tariff-war, which had existed for years, to an end. Already at the first meeting held at Warsaw for the discussion and agreement as to a tariff-armistice, it was found that both parties desired to uphold trade relations and possibly even to extend them. The rye agreement of November 25, 1933, which settled the export of both parties, must be regarded as a success of these efforts. The farmers' delegates cleared up all open questions in this matter and thereby took the first step to an economic approach of the two countries. The conclusion of the tariff-peace on March 7, 1934, was followed by further discussions in April and May at Warsaw and at Berlin, at which the general situation was reviewed and means to fight the economic crisis were discussed. An astonishing agreement in principles was found, and, in the German market control and the Polish export organization, means were provided for collaboration, so that discussions of concrete and detailed questions could start with hopes of success.

As confirmed by experience in Denmark, Hungary, and Yugoslavia, a surprising conformity of ideas showed itself everywhere, and a similarity in the trend of thought and opinion springing from the common peasant nature. Perhaps it is to be hoped that by this means a political *rapprochement* of the European states may result, for it has certainly been proved that the peasant or farmer, whether he ploughs his furrow in northern or eastern Europe or in France, does not lend his ear to imperialist music, and it also has been proved that he has in his political outlook stuck to his old ideas, which are by no means always in accordance with those expressed in Parliament or in the Press.

It is a well-known fact that Germany has concluded quite a number of these commercial agreements with its direct and indirect neighbours. The agreement with Holland was followed by those with Switzerland, Poland, Denmark, Finland, Esthonia, Hungary, and Yugoslavia.

As the British Dominions supply the British Isles with raw materials and foodstuffs, so these European agricultural countries exchange their farm produce for the industrial products of Germany. But these imports do not, as in England, harm the farming interests of the country, nor do they upset the German market. One may say that the commercial connexion between Germany and these farming countries is even closer as the result of their fitting into the German market regulations and by their participation in the fair price allotted to the German farmer.

This trade based on compensation is in reality a genuine exchange of goods which successfully combats the over-estimation of money created by the liberal system of economics. The holding of foreign exchange can have no constructive or destructive influence on trade if the balance of trade is made through merchandise. The Americans openly concede in their studies of the economic situation that their insistence on an active balance of trade, which had to be equalized by gold, has ruined their foreign trade after they had, as a result of the War, become a creditor instead of a debtor nation. The granting of credits for the increase of American exports has made matters worse rather than better. The leaders of the Polish peasants point out that for their country, which is lacking in capital and is still in a state of construction, the payment of imports in foreign currency is absolutely impossible and that these payments can only be made in kind.

The crowning of this new system would be the conclusion of such agreements with more than one partner at a time. The sooner the various states in Europe are converted to a system of internal marketing as in Germany the easier it will be to come to such a general understanding. The regional system would thus take the helm in economics and the variety of requirements and the manifold export goods would certainly dethrone money as the regulator of international commercial relations. The above-mentioned adaptation of the agricultural exporting countries to the needs of other nations may in this grouping be of far-reaching importance.

In what manner the regions will be divided cannot yet be stated, but it will be desirable to have the smaller European areas such as the Danubian, the east European, and the Balkan countries united in a large European area. It will be of the utmost importance, however, that imperialism should be completely eliminated. As a shrewd Polish peasant leader said, 'the necessities of Europe ought to be covered by Europe itself'.

As Europe will always need imports from overseas there will always be sufficient possibilities for commercial intercourse with other continents. But the principles upon which the new German economic system is built, self-government, collaboration, genuine demand, fair price, which form the foundation of the new German commercial agreements, must also form the foundation of the reconstruction of the world's trade.

European trade and world trade will have the necessary stability and security in a crisis only if it is based on the farming population of the countries concerned and if it is set in motion by the leaders of this farming population. If the financial and the general business interests give their assistance to these efforts they will gain for themselves the lasting merit of having brought about the final end of the world crisis and the creation of a new and secure epoch of economy.

THE ECONOMIC SIGNIFICANCE OF REGIONAL PACTS

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PARALLEL with the decay of the proud edifice of world economy built on capitalist principles, there have arisen and are arising regionally limited alliances of states in Europe and America. They arise in Europe frequently on the basis and under the compulsion of the new state outlines formed by the peace treaties, outlines the creation of which was an expression of the wish to make the two conceptions, state and nation, identical to the widest possible degree. The political identification of both these conceptions has, however, often brought to a head consequences whose economic nature could not be seen in advance. A special form of the effect of these consequences has been the creation of alliances as, in the grouping into regional pacts, we regard them as the characteristic symptom of the later post-War period.

All existing regional pacts have in common one economic feature—and this alone forms the object of my remarks, namely: a more or less far-reaching evasion of the most-favoured-nation clause, in the sense that the regionally allied states grant each other preferential treatment which they deny to third parties.

I need not deal further with the importance in principle of the break-down of the most-favoured-nation clause. Neither can I go into further details of the history and the contents of the existing regional pacts because there is not enough time. I will content myself by throwing more light on the economic effect of the existing pacts by means of a few figures, in order to make clear to you, through the analysis, their economic significance. Unfortunately, I must limit myself to data up to the end of 1932, principally taken from the statements of the publications of the League of Nations Secretariat in Geneva, as those of last year, 1933, are not yet available. In spite of that, I believe that a few not unimportant conclusions can be drawn from these figures.

The pact of Ouchy between Belgium, Holland, and Luxembourg, whereby these countries bound themselves to the well-known mutual customs reductions, which they have so far not been able to put into effect, shows the following economic basis. The percentages of

Holland's imports from Belgium in relation to the total imports were: 1930, 10·6; 1931, 10·4; 1932, 10·1. The corresponding export percentages were: 11, 12, and 13·9. Against this, it must be pointed out that the extent of the export of goods from Holland to England in 1931 and 1932, 18·9 and 24·5 per cent. respectively, as well as to Germany, 19·5 and 22·9 per cent. respectively, is considerably larger than to Belgium. Also the relations of Belgium with France, 12·6 and 19·7 per cent. respectively, England, 15·5 and 21·2 per cent. respectively, and Germany, 10·5 and 12 per cent. respectively, are considerably more extensive than those with Holland. According to these figures a practical result of the agreement of Ouchy can hardly be expected. On the contrary, both states must be eager to respect the interest of their customers as much as possible, and consequently the development of their mutual relations must take the second place.

The agreement of the Scandinavian states, whereby the most-favoured-nation clause, in agreements with other countries, is not applied in the mutual relations of Denmark, Norway, and Sweden, has only sanctioned a state of affairs already in existence. Of the total value of the mutual imports and exports, the figures were as follows:

Trade		*1931*		*1932*	
Between	*and*	*Imports*	*Exports*	*Imports*	*Exports*
		% of total imports	% of total exports	% of total imports	% of total exports
Denmark	Norway	1·5	5·1	2·1	2·8
	Sweden	6·2	6·4	5·4	5·7
Norway	Denmark	8·1	4·0	4·9	4·4
	Sweden	10·3	6·5	8·4	6·4
Sweden	Denmark	6·1	7·2	6·3	6·4
	Norway	2·8	6·4	3·3	6·4

This trade is only moderate in comparison with what these states do with other countries since, for example, Denmark sends 61–64 per cent. of the total value of its exports to England, and imports from Germany 26–33·5 per cent. of its imports. Norway sends to England 25–27·3 per cent. of its whole exports and imports 21–23 per cent. from Germany. Sweden exports to England 25·6–26·7 per cent. and imports from Germany 29·3–33 per cent. of its imports. It is understandable that, for the Scandinavian countries economically, the attitude of the countries named must be most decisive, and that the extension of their mutual relations within the framework of the regional pact must be regulated principally according to this point of view.

Within the framework of the Baltic pact the mutual exchange of commodities is limited to 0·1–5·2 per cent. of the value of the whole trade, whereas, for example, the export to England from all three countries of the pact, Esthonia, Lithuania, and Latvia amounts to 24–48·7 per cent. of their total exports, the imports from Germany alone being 24–47·1 per cent. of total imports. What, therefore, has been said of the Scandinavian countries as to the economic importance of their agreement is also true of these countries.

The circumstances are very similar in the regional pact of the Iberian Peninsula, i.e. in the direct trade relations between Spain and Portugal, as well as in the relations of these countries with their former colonies and allied states (Argentina, Brazil, Chile, Cuba, Mexico, Colombia, Uruguay, and Venezuela). The exports of Spain to the above-named countries amounted in 1932 to 12·8 per cent., the imports from there to 12 per cent. of the total value. In 1932 the corresponding values were 15·3 and 12·5 per cent. respectively. On the other hand, of the whole Spanish exports, 23·9 per cent. went to England, 19·8 per cent. to France, 8·8 per cent. to Germany and 7·5 per cent. to the U.S.A., making a total of 60 per cent. The import figures were as follows: U.S.A. 17·1 per cent.; England, 12·5 per cent.; Germany, 12·5 per cent.; France, 7·6 per cent.; making a total of 49·7 per cent.

We find that Portugal has completely analogous relations. Portugal's exports to Spain, Brazil, and all colonies amounted to 16·5 per cent. in 1932, the imports from there to 24·8 per cent. of the total value; against that the imports from U.S.A., England, France, and Germany totalled 57·8 per cent. and exports 52·4 per cent.

The regional pact of the States of Central America, Nicaragua, Honduras, Costa Rica, and San Salvador, which secures to all the members complete freedom of movement for all their own products in the whole area of the bloc, thus constituting a sort of customs union, also shows that from an economic standpoint this may be regarded as quite harmless. The mutual relations are of so slight a nature that their value generally falls below 1 per cent. of the total value of exports or imports, and is often only included under the all-embracing term of 'other countries'. On the other hand, the exchange of goods with countries standing outside the regional pact is incomparably more valuable. For example, Guatemala imports 54·9 per cent. of its total from the U.S.A. and exports to there 35·4 per cent. The corresponding figures of trade with Germany are 33·1 and 12·8 per cent.

respectively. Costa Rica exports 60·3 per cent. of the total value of its exports to England and imports 51·8 per cent. from the U.S.A. San Salvador exports to the U.S.A. 23·5 per cent. and imports 49 per cent. from there. Honduras exports to the U.S.A. 71·6 per cent., and imports from there 72·4 per cent. of the total value of its foreign trade. All these figures refer to 1932.

All the regional pacts cited have been concluded between sovereign states which, in this way, wish to secure for one another mutual economic advantages. We see, however, that the monetary value of the expected advantages is comparatively small; that often, in comparison with the value of the exchange of goods with third parties, it hardly comes into consideration, and, consequently, from the point of view of world economic conditions, there can hardly be attributed to these pacts that importance which is frequently given them. If we go into the causes of this phenomenon, we find that all the pacts quoted here regionally bind such states as possess a similar economic structure, and thus very little mutual exchange. As a result of the similarity of their production they have to find for their export third-party countries more capable of absorbing their products than the member states of the regional alliances. The maintenance of trading relations with these third-party states is obviously of much greater importance to all countries allied by regional pacts than the trade amongst themselves. It is only when states with complementary economic structures combine to separate themselves from third-party states that regional pacts of this nature gain a real importance in world trade and can exercise a decisive influence on it.

The most convincing example of this is seen in the Ottawa Agreement of August 1932 between the countries belonging to the British Empire. So much has been written about this by specially qualified experts at this conference that it is unnecessary to add further details. I would merely say that within the agreement, which embraces eight countries and over a hundred colonial administrations, the most-favoured-nation clause is NOT applied, that is to say, the privileges which members of the Empire mutually concede to one another cannot be claimed by external countries on the ground of the most-favoured-nation clause. This agreement thus represents a regional bloc of enormous magnitude whose importance in world trade may become still greater.

The agreement of Italy with Austria and Hungary, although obviously of less importance than that of Ottawa as regards world trade, appears to be of vital importance in the problem of the regulation of central-European trade relations. In this case, states which can frequently supplement each other's production are brought into combination.. Preferential treatment, which they grant each other, can most effectively evade the most-favoured-nation clause in relation to a third party. By quotas, by the manipulation of tariffs, by alliances of related industries, and by ordinances as to clearing and foreign currencies, which, as far as the contents of the agreement are known, are to be applied, the effectiveness of preferential treatment can be considerably increased. This regional trade boundary of the three states may become an insuperable barrier across the road of the former markets of third-party states and for this reason alone this regional agreement could acquire a world economic importance reaching far above that of alliances concluded hitherto between states of similar economic structure.

The period since the coming into force of the Italy-Austria-Hungary pact—June 1, 1934—is still too short to provide any definite figures as to its effects, but this pact is of very special importance.

The bloc of the Little Entente of February 16, 1933, constitutes a regional pact of a special kind. The bloc includes Yugoslavia, Rumania, and Czechoslovakia. Its economic significance is just emerging. The guiding principles are laid down by the decisions of the permanent council of the Little Entente of June 1, 1933, in Prague. The pact of the Little Entente has replaced the agreements which have existed between Rumania and Czechoslovakia since April 23, 1921, between Rumania and Yugoslavia since June 7, 1921, and between Czechoslovakia and Yugoslavia since August 31, 1922. They were prolonged by the convention of all three states on May 21, 1929, for the purpose of common action in questions of a political nature. The new pact provides for a complete co-ordination of the general policy of the three allied states, thereby forming a greater international unit, which, however, other states may join. According to Article 6 of the pact, the unanimous agreement of the council of the Little Entente is in future necessary for each and every political agreement of the members of the pact, as also for every economic agreement which might involve important future political consequences. Article 7 prescribes that there shall be set up an economic council of the Little Entente for the purpose of progressive co-ordination of the economic interests of the three states, whether it is with regard to their mutual relations or with reference to third-party states.

The pact of the Little Entente is not at all exclusive. It provides from the outset for the possibility of other states joining and further also permits each member to conclude independent trade agreements with third-party states, in so far as these are not likely to involve important political consequences. According to the interpretation given by Dr. Beneš to this article, the conclusion of a customs union, or an event of similar gravity, would be regarded as an act of this nature. These ordinances alleviate the regional limitation of the Little Entente to a very great degree, but, on the other hand, they do not take away in any way from the pact the 'bloc' character of the regional limitation.

The freedom to conclude agreements independently has hitherto been exhaustively exploited by every single partner to the pact. Yugoslavia, since the conclusion of this pact, has made a trade agreement with Hungary on May 1, 1933; a preferential treaty with France on May 10, 1933; a compensation agreement with Greece in July 1933; a trade agreement with Austria in August 1933; a trade agreement with Germany on May 1, 1934; &c. It is really superfluous to quote in the same way the independent conclusion of agreements by Rumania and Czechoslovakia in the same period. The actual complete independence of the separate states of the Little Entente should be sufficiently proved by the examples already quoted. These independent agreements are always bilateral, often also preferential, and in some cases they have even been built up on quotas.

The pact of the Little Entente combines two agrarian states: Yugoslavia and Rumania with an industrial-agrarian state, Czechoslovakia, and thereby creates an economic union within which the branches of production are frequently complementary. Up to the conclusion of the agreement the Entente countries had an exchange of commodities of considerable extent.

In the following table we see the percentages of the total exports and imports of the various states in their trade with one another:

	Imports					*Exports*				
	1928	*1929*	*1930*	*1931*	*1932*	*1928*	*1929*	*1930*	*1931*	*1932*
Between *Czechoslovakia*										
and Yugoslavia	9·0	5·4	8·2	15·5	13·2	17·9	17·5	17·6	18·2	16·0
and Rumania	..	6·2	7·0	7·0	7·0	13·6	14·9	12·2	12·0	2·1
Between *Rumania*										
and Czechoslovakia	4·1	3·8	3·4	2·6	4·1	2·4	2·8	3·6	4·8	4·1
and Yugoslavia	1·2	12·0	3·0	1·9	3·1	2·7	2·4	3·2	1·6	1·2
Between *Yugoslavia*										
and Czechoslovakia	17·9	17·5	17·6	18·2	15·6	9·0	5·4	8·2	15·5	13·1
and Rumania	2·6	2·4	3·2	1·6	3·0	0·3	0·5	0·5	0·3	0·4

As can be seen, the extent of the exchange of commodities between the two agrarian members of the Little Entente is quite unimportant, which is not to be wondered at when one considers the similarity of their economic structure, but this similarity is not absolute. Whereas, for example, Rumania is deeply interested in the export of barley (in 1931 to the value of 2·2 milliard Lei, i.e. 11·8 per cent. of the total exports), and of petroleum derivatives (6·8 milliard Lei, i.e. 31·9 per cent. of the total exports), Yugoslavia exports considerable quantities of fruit and industrial plants (in 1932 to the value of 482 milliard Din, i.e. 15·7 per cent. of the total exports).

The ties with Czechoslovakia are considerable and permanently to her own advantage, as it delivers the finished articles of its industries to the agrarian states in exchange for their agricultural products. It should not, at the same time, be overlooked that the economic-social potential of the export of factory products is considerably more effective than the potential of the agrarian production,[1] so that the economic effect of the pact of the Little Entente seems to be particularly advantageous to Czechoslovakia. The efforts of the participants are now aimed at co-ordinating, so far as possible, their mutual production. Mutual preferential treatment is provided for, but it is not yet decided how far the most-favoured-nation clause may be departed from. For certain articles quotas are provided for. Here the aim has been to balance the value of the inter-exchange of commodities in order to eliminate as far as possible the debit balance which the agrarian states have hitherto had in relation to Czechoslovakia. Such a proceeding must eventually lead to a release of great quantities of products which have up to now been bound up in the mutual exchange and for which new markets will now have to be sought and found.

On the other hand, it is open to over-industrialized Czechoslovakia to transfer many of her closed-down industries to the Balkan countries, poor in capital, and to produce, within the scope of these countries' own requirements, articles hitherto purchased from Germany, Italy, or elsewhere.

The necessity will arise of making special agreements between the two agrarian states in order to cut out the mutual competition in the basin of the Mediterranean and in central Europe, for example, with reference to maize, timber, pigs, &c. This may be done by sharing the markets, or by cartels which would regulate the whole production and sales.

One factor deserves special mention. The Little Entente has no intentions of autarchy. It cannot have any, because in spite of its area (685,131 sq. kilometres) and its considerable population (47,774,000 inhabitants) neither the surplus of their agricultural nor of their industrial production can be consumed within their boundaries. The following figures prove this as regards the agricultural products:

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[1] See M. Manoilescu, *Théorie du Protectionisme et de l'échange international.* Paris, 1927.

	Annual export surplus: 1930–3 average			*Annual import requirements of Czechoslovakia: 1930–3 average*
	Yugoslavia	*Rumania*	*Total*	
Wheat (dz.)	2,379,000	5,048,000	7,427,000	4,565,000
Maize (dz.)	3,032,000	13,157,000	16,189,000	4,214,000
Barley (dz.)	16,000	10,069,000	10,085,090	1,245,000
Cattle (head)	98,000	85,650	185,767	37,198
Pigs (head)	263,381	182,166	445,547	287,132

Czechoslovakia's demand for agricultural imports becomes less and less. In 1933 no wheat imports were necessary, the imports of cattle fell to 759 animals, of pigs to 136,000. Yugoslavia and Rumania are consequently still dependent on the export of their agricultural surplus to other countries, i.e. not only beyond the limits of the Little Entente, but also beyond the borders of the succession states of the Austro-Hungarian Monarchy, and beyond the limits of the plan fixed at one time by M. Tardieu. They need as markets, in addition to Czechoslovakia and Austria, Italy, Germany, and Switzerland.

In these countries both Yugoslavia and Rumania must endeavour to sell their agrarian products at prices which can bring moderate profits again to their agriculture. This is naturally the real aim of all trade alliances, especially in so far as they aim at the reconstruction of central Europe. It is as true of the sale of agricultural as of industrial production. The efforts of the agrarian states named have so far shown no success worth mentioning. The prices of their agricultural products continue to fall still further; the purchasing power of their population cannot increase; they are getting poorer and poorer.

And yet industrial states ought to consider that they can make up for losses of markets in all parts of the extra-European world to a certain extent only in the intermediate territories of Europe. To achieve this, a raising of the purchasing power of the population of these small peasant states is necessary, that is to say, of the selling possibilities of their agricultural products at corresponding prices.

One should be quite clear about the fact that if these states could sell their wheat, maize, &c., at German, Italian, or Czechoslovakian home prices, it would increase their national income by 2–2·5 milliard Swiss francs,. which would mean an increase in their consumption capacity to the same extent. The sale of eastern European products in western countries at the latter's home prices, that is to say, with a 100 per cent. preference of the import duty, is by no means impossible.

No danger of any kind would thereby be caused to the hard-won price-level of agriculture in the western countries, because the imports of the duty-free agricultural products of the eastern countries could come on the open markets only through the existing marketing and import boards, which could always keep up the price-level in order to prevent their own agricultural interests from being threatened.

Only thorough preferential treatment can produce that economic improvement in the countries enjoying it, and ought to be striven after for these countries in the same way as for the exporting industrial countries. As it would, however, take us too far to develop this idea further, I will merely mention that the eastern agrarian countries have in the meantime recognized that their sales in the West will go on decreasing, and that they will consequently be forced to look for new markets in the basin of the Mediterranean. There are possibilities for this to a surprisingly extensive degree, and the Little Entente intends to develop them systematically. To the extent that this cannot be done within the framework of the alliance, it will be done in connexion with the Balkan Pact (February 1934, in Athens).

The bloc bound by this pact includes Yugoslavia, Rumania, Greece, and Turkey, altogether about 1·5 million sq. kilometres and 53 million inhabitants. If Albania and Bulgaria join them, its area would be increased up to 1·6 million sq. kilometres, and its population to 60 millions.

This huge territory has, at the present time, very few economic ties within itself. Yugoslavia and Turkey have a somewhat more extensive exchange of goods with Greece; the other states can hardly point to any turnover worth mentioning. It is a moot point to what extent these conditions will permit of modification and change in states with such a similar economic structure. But this problem is really not so important as it seems. What is more important is the possibility of being able to regulate the relation to third-party states on the basis of the pact. The decisions taken hitherto by the Balkan conferences, at which representatives of all Balkan states took part (1930 in Athens, 1931 in Constantinople, 1932 in Bucharest, 1933 in Salonica), enable us to draw valuable conclusions in this respect. Above all things, the decisions of the conferences adopted the slogan: 'The Balkans for the Balkan peoples', and this is meant both politically and economically. A preferential treatment of all export articles within the Balkans is being striven after by the application of a special 'Balkan Clause' and by the fixing of quotas.

The policy towards third-party states is as follows:

> 'The signatory states will direct their efforts in their commercial policy towards the extra-Balkan states to the most efficient protection and the defence of export interests on foreign markets with a view to assuring the best possible sale of the principal products which interest Balkan peoples.'

It is clear that the carrying out of such guiding principles will imbue the Balkan pact with a special economic importance. If especially the western countries throttled still further the export of products of the south-eastern countries, the states allied in the Balkan pact would be forced to change the direction of their exports, and would have to seek out and win the hitherto neglected markets of the East, so near to them, as well as of the whole Mediterranean basin. Efforts in this direction will have all the quicker success, the sooner the Balkan states understand how to carry out a systematic division of the economic area, according to the principles of the division of labour and zoning of markets.

Should such aims materialize into fact, we must be prepared for their being involved in cultural and social as well as in economic consequences. We must not forget that the division of the Roman Empire into a western and eastern territory was also the consequence of economic and cultural differentiations and that a similar process can take place in our own day, brought about by circumstances such as have been created by the Balkan pact.

INTERNATIONAL SCHEMES FOR REGULATION OF SUPPLY

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THE trade cycle brings in its train not only changes in business psychology and political outlook but even changes in the meaning of words. During the post-War boom, restriction of output connoted a policy of 'ca' canny' on the part of the workers. To-day restriction of output is advocated as the way of salvation for primary producers. It has come to connote orderly marketing of commodities and adjustment of supply to demand, particularly in agriculture.

This paper is concerned with the working of so-called restriction schemes of which the plans for rubber, tin, sugar, and coffee are the outstanding examples. They represent attempts to adjust supply to demand in world markets by regulation in place of *laissez-faire*. I prefer to call them, in the words of my title, 'International Schemes for Regulation of Supply'.

At the World Economic Conference held in London a year ago a special Sub-Commission was appointed to examine this subject under the title of 'Co-ordination of Production and Marketing'. After keen discussion a resolution was adopted to the following effect:

1. In order to assist in the restoration of world prosperity, it is essential to increase the purchasing power of the producers of primary products by raising the wholesale prices of such products to a reasonable level.
2. In the exceptional conditions of the present world crisis, concerted action is required for this purpose. Apart from any other measure that may be taken to restore the purchasing power of producers and consumers and thus to increase demand, it is desirable that plans should be adopted for co-ordinating the production and marketing of certain commodities, of great importance for world trade, in which there is an excess of production or stocks.[1]

The resolution then went on to lay down certain conditions of suc-

[1] League of Nations, *Journal of the Monetary and Economic Conference*, No. 16, June 28, 1933.

cess for such plans, which may be briefly summarized as follows: the plan must be sufficiently wide in scope to embrace the majority of the producers; it must be fair to consumers and not discriminate against particular countries; it must be effectively enforced by the Governments; it should be flexible, of sufficient duration to ensure success, and compatible with a reasonable degree of efficiency.

The Sub-Commission thus expressed a remarkable unanimity among the governments in favour of schemes for international regulation of supply. The only reservation was that expressed by Mr. Bruce, the Australian delegate, who would have preferred to say that a policy of restriction 'may be necessary' rather than 'is desirable'. Restriction of production, he urged, is no remedy for general impoverishment. The same point was pithily expressed by Mr. Ogden Mills at a recent meeting of the Academy of Political Science in New York. He said, 'You will never solve the paradox of want in the midst of plenty simply by doing away with plenty'.[2]

Let us agree with Mr. Bruce and Mr. Mills that restriction of output all round is the precise opposite of the economic good. Let us concede that there is little or no statistical evidence to show that an excessive increase in primary production played an important part in causing the world depression. But the fact remains that the subsequent stagnation of industry and reduction of consumption through unemployment has led to a severe crisis of over-production in relation to demand in many branches of primary production. As Mr. Hawtrey has said, falling prices generate unemployment in industry and over-production in agriculture. Planned expansion of consumption through reduction of unemployment is a more rational objective than planned restriction of output. But the world seems to find the former even more difficult than the latter.

Restriction is thus no more than a temporary corrective; like the governor of an engine it generates no steam and inspires no enthusiasm. But regulation of supply by planning and concerted action looks farther ahead than mere restriction. It seeks to adjust production not merely to a reduced demand in the present but to an increasing demand in the future. It claims to represent the application of man's collective intelligence to the elimination of the harsh and often wasteful ruthlessness of *laissez-faire.*

This view differs from that of the Preparatory Commission of Experts who prepared the Agenda for the World Economic Conference. They regarded regulation of supply by producers' agreements as an expedient undesirable in itself as a permanent policy but justifiable as a temporary palliative. A closer analysis may show that international agreements for regulating the supply of primary products may, if successful, contribute more than a temporary alleviation of the world's present disorders. They may even provide a corrective to the excesses of economic nationalism and a stabilizing influence in combating the evils of the trade cycle.

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[2] *Proceedings of the Academy of Political Science*, April 1934.

I do not wish to over-emphasize these claims. I put them forward as claims to be examined. Each scheme is an experiment in itself encountering stupendous practical difficulties and varying degrees of scepticism and opposition. It should be the business of economists to examine their working objectively with the minimum of preconceptions based on *a priori* reasoning. Most economists start with a certain bias against planning, and this is natural since it is so much easier to plan badly and make mistakes than to plan well and achieve success. Even advocates of planning would admit that bad planning may be worse than no planning at all; but if the world insists on experimenting with planning, a critical analysis of the conditions of success and failure becomes an urgent necessity. After all, planning and *laissez-faire* are logical abstractions. What we have in the real world is a mixture of both; and the practical problem is to find the right degree of admixture.

An excellent critical account of these restriction schemes is contained in a series of articles by Mr. Rowe, published in the London and Cambridge Economic Series. Some of the significant features of the principal schemes may be mentioned before we attempt to draw any general conclusions.

Rubber. The story of rubber is well known. A rubber-tree takes five to six years to come into bearing and some ten years to reach maturity. The rapid expansion of the motor-car industry stimulated excessive planting, and as the new trees came into bearing the demand failed to keep pace with the supply. During the slump the production of motor-cars in U.S.A. fell by 55 per cent. in two years, and the price of rubber, after touching 4*s*. 6*d*. a lb. in 1925, fell from 10*d*. at the end of 1929 to 1⅝*d*. in June 1932. The Stevenson Restriction Scheme broke down in 1928 mainly because it was confined to British territory, but partly because a mistaken forecast led to the price being raised too high. A year ago stocks were more than twice the normal and the existing surplus capacity pointed to a potential increase of nearly 100 per cent. in world output within the next few years. Here, if anywhere, some central scheme to adjust supply to demand seemed called for.

For some time attempts to bring in the Dutch East Indies failed owing to the difficulty of controlling either the production or the export of native rubber in Sumatra. But the discussions at the Sub-Commission of the World Economic Conference under the chairmanship of Mr. Colyn prepared the way for co-operation and a world-wide agreement for rubber regulation was signed on May 7 of this year. An International Rubber Regulation Committee has been appointed with offices in London, the contracting parties being the Governments of France, the United Kingdom, India, the Netherlands, and Siam. The agreement provides for a reduction of exports on the basis of a monthly quota for each rubber-growing territory or group of territories. The full quota was allowed to be exported in June and July of this year, 90 per cent. in August and September, 80 per cent. in October and November, and 70 per cent. in December 1934. New planting is virtually prohibited. Fortunately there was a marked improvement in 1933 in the absorption of rubber, which exceeded that of the previous peak year of 1929. At the time of writing the price of rubber has recovered to 7½*d.* a lb., which is twice that of a year ago.

Coffee. Control of coffee has been in existence in Brazil for nearly thirty years. The demand for coffee is less subject to rapid changes than that for rubber; but the natural fluctuations of supply are much greater. It is a plantation crop like rubber, and the bush takes three or four years to mature. The berry is harvested annually and the harvest varies greatly, partly owing to seasonal conditions but mainly owing to the state of the trees. A bumper crop may be expected once in every three or four years, and is nearly always followed by a short crop. The Brazilian Coffee Valorization Scheme, like Joseph in Egypt, aims at holding up supplies and regulating sales in bumper years and liquidating the surplus during the succeeding lean years. Until the present slump the scheme appears to have worked fairly successfully. Mr. Rowe's conclusion is that the general effect has probably been to give the producers about what would have been the average price over a period of years under *laissez-faire.* The principles of the scheme appeal to the producers' desire for stability and sense of fair play. The present crisis is exceptionally severe owing to the combination of two good harvests with the world-wide depression of trade. It is being met by prohibition of fresh planting and by a levy on exports which is used to buy up surplus stocks for destruction, or for use as fuel. The limitation of the scheme to Brazil, though it has a virtual monopoly of the cheaper kinds of strong coffee, is a source of weakness which has not yet been remedied by an extension of control to areas producing mild coffee.

Sugar. The most ambitious and comprehensive scheme of world planning that has yet been attempted is the Chadbourne Sugar Plan of 1931, embodied in an International Agreement to which Producers' Organizations and Governments in Cuba, Java, Germany, Czechoslovakia, Belgium, Poland, Hungary, Yugoslavia, and Peru are parties. Since the World Economic Conference the British Colonial Empire, France, Italy, and Japan have also agreed to limit production.

Since cane and beet sugar are annual crops, the supply is capable of rapid expansion. The demand, on the other hand, is fairly steady and inelastic. The normal increase in consumption varies from about 3 per cent. to at most 5 per cent. per annum, but during the last five years consumption has remained more or less stationary with an average slightly below the 1928–9 figure. Restriction was first introduced in Cuba in 1926, the President being given power to prohibit further planting and to fix both the total output of sugar and the output of each factory. The abandonment of Cuban restriction in 1928–9, and the expansion of production in Java and Europe, precipitated a crisis which finally induced Java and the beet-sugar countries in May 1931 to agree upon restriction. The Agreement provided for limitation of exports and production, and for segregation of surplus stocks amounting to 3¼ million tons. Cuban production has fallen from more than 5 million tons in 1924–5 to 2 million tons at the present time. Java has reduced output from 3¼ million tons in 1928–9 to about 600,000 tons in the current year, with stocks amounting to 2¼ million tons.

The necessity for this drastic reduction has been due partly to the decline in total consumption but mainly to a considerable expansion in protected areas. Sugar production in the Plan countries has fallen from 12·5 million tons in 1929–30 to 6·9 million tons; but in countries outside it has increased from 14·7 million tons to 19·3 million tons. After some improvement last year, the world price of sugar is now less than half its 1928 level.

At the recent Conference in Brussels, Java was unable to accept a revised quota of 750,000 tons for the current year, and the future of the scheme seems likely to depend on the result of negotiations with the United States and other countries outside the Plan.

Tin. The Tin Restriction Scheme has achieved a greater measure of success. In its present form it is based upon an agreement between the Governments of Malaya, Nigeria, the Dutch East Indies, Bolivia, and Siam. The existing agreement embraces more than 90 per cent. of the world's output. Export quotas are allotted to the participating countries in proportion to agreed figures of output in 1929. Production in the four principal countries has been cut by two-thirds since 1929. In 1931 an International Tin Pool was formed to segregate 20,000 tons of surplus stock. The minimum price at which it undertook to sell its holdings was fixed at £165 a ton. These stocks have now been liquidated at a considerable profit, and a proposal has recently been approved for the creation of a new Buffer Pool, comprising about 8,300 tons, to assist in adjusting supply and demand without undue fluctuations.

As a result of the scheme, the price of tin rose from £120 per ton in April 1932 to £180 in May 1933 and £235 in March 1934. Since March last the price has been steady at about £230. It is significant to note that, whereas the prices of copper, lead, and zinc stand at about the lowest level reached in the nineties, tin is now more than four times as high.

Wheat. Of more interest to agricultural economists is the International Wheat Agreement signed on August 25 of last year by sixteen of the chief exporting and importing countries. At the time of writing, the International Wheat Advisory Committee, set up by the Agreement, is meeting in London to review the working of their plan for regulating the world's wheat supply. The salient features of the original scheme were a limitation of exports by the United States, Canada, Australia, and the Argentine on the basis of agreed quotas and reduction of acreage by 15 per cent. in the United States and Canada with complementary measures in Australia and the Argentine. The scheme is now being reconsidered in the light of altered circumstances and an attempt is likely to be made to establish new quotas for the coming crop.[3]

Tea. The Tea Restriction Scheme introduced as from April 1, 1933, applies to India, Ceylon, Java, and Sumatra, which account for about 90 per cent. of world production.[4] Export quotas are laid down based on standard exports in either of the years 1929–31, and for the first year they were limited to 85 per cent. of the standard year. New planting is prohibited and export of tea seed is forbidden. An International Tea Committee has been set up to administer and fix export quotas. The duration of the scheme is limited to five years.

Bacon. Brief reference may perhaps be made to what is in effect an International Bacon Regulation Scheme. The requirements of the United Kingdom, which is virtually the sole importer of bacon, were laid down in the Report of the Lane Fox Commission. The amount to be supplied from home production is determined on the basis of long-term contracts between the Pigs and Bacon Marketing Boards, and the balance is allotted by means of import quotas to Denmark, Holland, and other exporting countries. Steps are being taken to regulate pig production in Holland and Denmark with the twofold object of smoothing out the pig cycle and adjusting supply to the requirements of home and export markets.

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[3] Secretary Wallace, in replying to a recent statement by the Argentine Minister of Finance that the United States' acreage had only been reduced by 8·6 per cent. is reported to have said: 'We were in the process of buying up additional wheat acreage, when the drought did the job for us.' (*Commercial and Financial Chronicle*, New York, July 28, 1934, p. 510.

[4] China, Japan, and South and East Africa were outside the original scheme.

CONDITIONS OF SUCCESSFUL REGULATION

The conditions of success or failure vary so much with each commodity that experience is worth more than theory in determining what form of plan will work best. Experience, however, suggests points of resemblance and contrast from which certain general conclusions may be drawn.

The first and most essential condition of successful regulation is accurate statistics. Statistics and market intelligence, which may be reasonably adequate under *laissez-faire*, are generally quite insufficient for deliberate planning. Even in wheat the margin of error in world statistics is of the order of at least 100 million bushels. The difficulty of securing reliable statistics has been one of the chief problems in the application of the Five-Year Plan to Russian agriculture.

It would be interesting to speculate on the influence that the publication of agricultural statistics has had on the working of *laissez-faire*. When David Lubin persuaded the King of Italy to establish the International Institute of Agriculture, he hoped that its statistics would go a long way to solve the farmers' marketing troubles. Recently I heard a business man attribute the fall of prices mainly to the newfangled fashion of publishing crop forecasts. Pure *laissez-faire* marketing, as illustrated, say, in an Indian bazaar, needs no market intelligence. It is the economic statistician who is undermining *laissez-faire* by encouraging people, first, to take views about supply and demand, and then, as a natural development, to attempt to regulate supply by collective action.

The statistics of tin and sugar are reasonably good because tin-mines and sugar-factories keep adequate records. Rubber and wheat statistics are less satisfactory, since they are largely produced by peasants and native growers who keep no records. It should be observed, however, that planning very soon improves the statistics and provides a wealth of data for the economic investigator. Economists who are interested in fact-finding rather than theory may for this reason be expected to have a bias in favour of planning. In this respect there is possibly some analogy with medical science, which has been built up not so much on *a priori* reasoning but on knowledge gained from surgical operations and other forms of experimental interference with the natural processes of the human organism.

A second condition of successful regulation in the field of primary products is a considerable measure of government backing. This usually takes the form of giving statutory effect to agreements approved by the majority of producers and creating statutory bodies with power to administer the schemes. This may be supplemented by customs regulation at the ports, and in some cases a levy on exports or sales may be collected for equalizing internal and external prices, or for disposing of surplus supplies at a loss. Rationalization and the Trust movement in industry have hitherto been developed mostly without government aid and sometimes in spite of statutory or Common Law restraints on combination; but 'cartelization' in agriculture and primary production looks to government co-operation as an essential condition of its realization.

The third and most obvious condition of success is that the scope of the scheme must be sufficiently wide to include the greater part of the supplies entering world markets.

The tin scheme covers over 90 per cent. of the world's tin production. The tea restriction scheme covers India, Ceylon, and Java and is thus virtually complete except for Chinese exports. Rubber restriction broke down in 1928 because it covered only Malaya and Ceylon, and the benefits of the scheme were obtained largely by the Dutch East Indies. Brazil's Coffee Valorization Scheme and the Chadbourne Sugar Scheme have been handicapped by increase of production outside the restricted area. Both in sugar and in wheat, success will ultimately depend on the extent to which exporting countries can secure the co-operation of importing countries in limiting expansion of production inside protected areas.

As regards the technique of restriction schemes, we may regard them as standing on a tripod, of which the three legs are:

regulation of *exports*,
regulation of *production*, and
regulation of *stocks*.

Control of exports at the ports at national frontiers is easy enough to work, once national quotas, based on an agreed datum line, have been established. In rubber, however, there is a special difficulty, particularly in Sumatra, of controlling smuggling.

REGULATION OF PRODUCTION

Regulation of exports, however, is unlikely to improve prices to the producers without regulation of production. If production continues in excess of the amount required for meeting home demand and exports, internal prices will tend to fall below the level of prices obtained in world markets.

Two or three alternatives are then available. Either production quotas may be allotted to the actual producers, or steps may be taken to buy up and dispose of the surplus production for destruction or for disposal at a loss, or the surplus stocks may be segregated for gradual liquidation over a period of years.

The technical difficulties of directly regulating the production of agricultural commodities are of course enormous. The United States Agricultural Adjustment Administration, largely through having to its hand the nation-wide personnel of its agricultural extension service, has achieved the unprecedented task of limiting acreage under cotton and wheat by contracts with a million and a half individual farmers.

One of the most detailed schemes is the control of pig production in Holland and Denmark. In Holland each producer has a quota of pigs allotted to him which are literally ear-marked, and there is a penal tax on any fat pig offered for sale without the official mark on its ear. In Denmark the destiny of every pig is governed by the issue of cards which are allotted to pig-producers on a basis designed to favour the small producer who combines pig-producing with dairying. Pigs delivered without their official cards have to pay a substantial tax to the Bacon Committee.

In rubber the problem of assessing native holdings presents the chief difficulty and the means by which this will be accomplished in the Dutch East Indies has not yet been announced.

In the case of sugar, quotas are allotted to the factories, which then make their own arrangements with the actual producers.

SURPLUS CAPACITY

A problem of considerable importance in some schemes is that of surplus capacity and the treatment of the less efficient high-cost producers. When schemes are introduced to meet what is thought to be a temporary emergency, there is a natural tendency to extend the shelter of the scheme to all producers. Production quotas are based on existing capacity and a percentage cut is then applied equally all round. This may mean bolstering up the less efficient and postponing their elimination. It would sometimes be more economical to concentrate production in the more efficient units and devise a scheme of compensation for the closing down of the less efficient. In industrial cartels this can be arranged by collecting a levy from those who wish to exceed their quotas, and compensating those who are willing to fall short. Alternatively quotas or parts of quotas may be transferred by negotiation from the less to the more efficient units. This is allowed under the tin restriction scheme in Malaya. It appears that in Denmark trading in pig cards is not unknown, though it is there regarded as contrary to the intentions of the scheme.

REGULATION OF STOCKS

Under *laissez-faire* stock-holding is the function of the private merchant or dealer; but since the War, partly owing to the greater risks involved, and partly owing to the growth of producers' organizations on the one hand and manufacturers' combines on the other, there has been a tendency for the dealer to be supplanted. Manufacturers and traders are more prone to buy from hand to mouth, and producers' pools or statutory boards have been storing stocks in the country of origin. During the depression the piling up of visible stocks has undoubtedly been accompanied by some diminution of invisible stocks. Unfortunately the extent to which this has happened cannot be determined with accuracy, though estimates have been made in the case of sugar.

Since it is difficult to forecast demand and still more difficult to adjust production quickly to changes in demand, regulated stock holding is for many commodities the pivotal point in regulating supply and demand. Both in sugar and in tin, provision is made for the segregation of an agreed amount of existing stocks for the purpose of holding them off the market and gradual liquidation. It should be observed that this policy of segregating stocks by international agreement, to be released according to an agreed plan as part of a scheme for restricting production and exports, differs fundamentally from the purchase of stocks by the Federal Farm Board in the United States. The Federal Farm Board started to buy wheat and cotton when prices were relatively high and held them off the market during a period of rapid deflation. They exercised a bearish influence on world markets. The tin buffer-stock scheme is primarily designed to prevent prices rising unduly owing to a temporary shortage rather than to raise prices above their equilibrium level.

REGULATION OF IMPORTS

Restriction of imports by quotas may be, and sometimes is, a useful adjunct to an international agreement for regulating supply. In the case of bacon, for example, the British Government has initiated an attempt to flatten out the pig cycle by something like an international bacon cartel. The amount of British imports is fixed by Great Britain, but the regulation of supply is left in the hands of the exporting countries. Since no import duty is imposed, this gives foreign producers the full benefit of the higher prices ruling in London.

The chief argument of general application in favour of restriction schemes is that surplus stocks and over-production of primary products, with their accompaniment of falling prices and bankruptcies, exercise a depressing and deflationary influence on trade and enterprise. This was the standpoint of the Sub-Commission of the World Economic Conference. But Professor Copland, in a recent article in the *Economic Record*,[5] has argued on the contrary that restriction of output has a deflationary influence and can do nothing to promote a general rise in prices. It is true that, if we assume that the volume of money and the velocity of circulation are strictly limited, a rise in the price of one set of commodities would tend to depress others, and on balance increase costs rather than profits. But when Central Banks and Governments are pursuing a cheap money policy and desire to see a general expansion of credit and increased velocity of circulation, it seems possible that restoring confidence and the possibility of profits in such important markets as wheat, tin, sugar, &c., may have a favourable psychological effect all round, and thus help to stimulate a revival in industry and the restoration of capital investment.

I come back, therefore, to the point where I started. Planned restriction of output is a *pis aller* forced upon the world, because of its failure to plan expansion of consumption. But planned regulation of supply, and particularly international control of reserve stocks of primary products, may prove to be an experiment of profound and permanent significance, which is not necessarily incompatible with, and may even conduce to, a greater volume of international trade and a more stable monetary system.

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[5] *Economic Record*, Dec. 1933, vol. ix, no. 17, p. 293.

INTERNATIONAL PLANNING FOR AGRICULTURAL PRODUCTION

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THE starting-point in the international planning of agricultural production is a settled policy in each nation with respect to foreign trade. If the nationalistic policies are carried to the extreme of complete self-sufficiency, there will be no occasion for international planning for agriculture, but if international trade in agricultural products is to be put upon a rational basis much careful thought must be given to its development. As students we may feel that international trade might have needed no government planning at this time if private interests had been left with adequate freedom, especially from the tariffs, to carry out their programmes based on private profit. However we may feel on this point, we are not in a position to quarrel with those responsible for this new trend but must try to understand it and contribute all we can towards an outcome beneficial to the human race. With honesty of purpose, intelligence, and efficiency on the part of the government agencies and with a well-defined objective, national in scope rather than groupistic in outlook and interest, it is possible that in the course of years the economic outcome may be essentially the same so far as the international aspects of the problem are concerned, whether we have government planning or private planning under government control. Furthermore, whatever might have been the more direct and efficient way to get on to normality had we started a dozen years ago, there are good reasons for believing that international planning by governments is essential at this juncture as a means of establishing more rational economic relations between the nations. The critical situation has been so largely produced by government action that it seems necessary for the present, at least, that the governments find and apply the remedy.

The starting-point in governmental planning is a clear understanding of the economics involved. A point of view which requires cultivation in many lands is that nationalism intelligently promoted does not imply national economic self-sufficiency or, as it is commonly called in Europe to-day, autarchy. The most extreme nationalistic spirit politically and socially is not inconsistent with the development and maintenance of a large amount of international trade. In fact it is only through supplementing the national economy with a requisite amount of international economy that the economic well-being of a people can be brought to its highest level. The amount of international trade essential to the maximum well-being of a nation is determined by the facts of economic geography. The ratio between national and international economy may be as 80 is to 20 or even as 90 is to 10, and yet this 20 or this 10 per cent. may make a vast difference in the standard of living of the people. Without it the quantity or variety of goods will be more restricted and the mental and moral outlook will be more limited. Not only will the plane of living be lower but the financial strength of the nation will be impaired, and the elimination of that amount of international trade which builds the best national economy weakens the bonds of international goodwill.

The future plans for international trade cannot be based upon historical models. Much of the international trade of the past century was built upon the differences in the degree of industrial development of the various countries. The colonial countries with limited supplies of labour and capital once found it desirable to give first attention to the exploitation of their natural resources, and to depend upon the older countries for manufactured goods. With the growth of population and the accumulation of capital more and more attention has been given to the manufacturing of raw materials into finished products in these newer countries. The development of manufactures out of all proportion to agricultural and other natural resources, in order to ply a foreign trade, has its importance in history but not in the plans for the future. The danger now is that the movement may go too far in the direction of autarchy.

The international trade of the future should be based upon rational economic policies, wisely tempered by the spirit of nationalism. The danger is that the international trade of the future may be based upon uneconomic emotionalism and that it will be a mere fragment of what a common-sense national economy calls for. This may be too pessimistic a view. There are some grounds for thinking it is. Much of the recent uneconomic action has been forced upon many of the countries by the irrational action of others. We are living in a time when nearly every country in the world is maintaining policies with respect to foreign trade which it knows would be contrary to its best interest in a rational world but which become necessary in the present irrational world. It is very significant of the times in which we live when a Cabinet member in a great nation remarks that in a sane world he would not be doing for agriculture the things he feels forced to do. The nations and occupational groups in nations now forced to irrational action will doubtless be very glad to drop many of their policies leading towards an excess of economic self-sufficiency so soon as those in power in the key nations of the world are ready to adopt rational economic policies with respect to the international exchange of goods.

False ideas on economic questions have long existed in certain key countries. Those ideas have stood in the way of clear thinking and rational action. Among these false ideas is the view, widely held in the United States, that the standard of living of a people is enhanced by a high protective tariff, and that without it living standards would fall to the level of the countries from which they import goods. The fact is that standards of living are depressed by the protective system. The true and real basis of the high standard of living in America is the favourable ratio between resources and population. This ratio enables Americans to secure a large product per man compared with other countries that have dense populations and relatively small resources. The tariff curtails the extent to which a country can benefit by its superior resources. The tariff leads a people to devote more of its labour to lines of production in which it has less natural advantage and in which returns per man are low, and it curtails the extent to which labour can be devoted to lines of production in which exist the greatest natural advantages and in which labour is more productive.

The producers of the major staples of agriculture in the United States have suffered for generations as a result of a bad tariff policy, but it is particularly since the United States ceased to be a debtor nation and became a creditor nation that her farmers have suffered most from this cause. When the United States became a creditor nation it was essential to the welfare of the nation as well as to the right relations with other nations that the tariffs be revised downward. Instead, as is well known, they were revised upwards and much impetus has thus been given to the development of nationalistic policies in many other countries which formerly looked to the United States for a part of their food supply. The time has come for clear thinking and definite action on the tariff question. Fortunately recent legislation provides the means of effective action on the part of the United States if the co-operation of other countries can be secured. Let us hope that this new tariff legislation marks the beginning of a new era in the annals of international trade.

The United States has been tardy in supplementing national planning with international planning. She now realizes that she must buy if she must sell and that international trade is a mutual affair in which all the nations involved have something to say. What has already been said in terms of tariff warfare is a long story of actions destructive to international trade and to national prosperity. Let us hope that this war is now to be succeeded by negotiations for peace, in which it is to be recognized that the international economy is a necessary supplement to a well-ordered national economy, that national planning cannot be carried to its logical and practical conclusion without international planning.

The question of nationalism versus internationalism is not involved. It is a question of a sound national economy with a rational supplement of foreign trade. It is obvious, therefore, that national and international planning must go hand in hand. It is true, however, that international planning has problems of its own because of the diversity of national interests involved. The technique of international planning is in its infancy. In the past, national legislation with an international bearing has been carried through, as a rule, without consulting the countries affected. International planning initiates the idea of international conferences and agreements as a basis of national conduct affecting foreign countries. Once the technique of international planning has been made effective, an important step ahead will have been taken by mankind.

THE TECHNIQUE OF INTERNATIONAL PLANNING

There has long been planning on an international scale by private corporations. These have as a rule dealt with one commodity or small group of allied articles and the profit motive has been foremost. Some of this international planning by private corporations has been entirely for the promotion of trade in articles produced in one country, but much of it has involved the manufacture of specific commodities in various parts of the world. The plan of producing sewing-machines, for example, at several different geographic points has been found desirable, partly because of advantages with respect to the cost of manufacture and distribution of the product, and partly because of trade barriers which make it desirable to produce the goods inside the tariff wall where they are to be sold. The May 23, 1933, number of *Planning* gives an interesting list of internationally organized commodities. Some are government-backed and others are purely private undertakings. Individual corporations which hold a dominant position in the production of given articles have played a dominant role in plans for world organization of industry and trade. Tobacco, oil, steel, and harvesting machinery, as well as sewing-machines, may be mentioned as examples with a British or American origin. While there are many other international corporations dealing with many of the basic commodities of industry, the International Harvester Company provides an example of the way in which the international planning of a profit-seeking company may inadvertently lead to results inconsistent with the best interests of the agriculture of the countries involved.

An example of the conflict between private planning may be drawn from the wheat industry of the world. At the close of the World War, when the United States Department of Agriculture was counselling acreage reduction in the lines where there had been expansion for war purposes, the International Harvester Company was counselling the use of new types of machinery which, through lowering labour costs, would enable farmers to expand their production into areas hitherto uncultivated and thus hold an increasing proportion of the world market for wheat. This point of view was advocated by the Harvester Company for Canada and all other wheat areas of the world as well as for the United States. This advice was followed up by well-organized sales agencies which operated throughout the cereal-growing world. This policy of the Harvester Company yielded profits for the company. It also played a dominant role in expanding the wheat production of the world beyond the needs of the world, or at least beyond the effective demand for wheat. While the profits of this world campaign were rolling in, one of the leading members of the Corporation was seeking for an opportunity to give a million dollars for the benefit of farmers. He desired to help the farmers, but his company's profit policy had blinded him to the true interest of the farmers. Later, when called upon to help solve the farm problem, as Chairman of the Federal Farm Board, this same man proposed a policy of crop acreage reduction diametrically opposed to the policy which he had so effectively promoted for his corporation. This incident is brought forward to show that international planning left to private initiative is inadequate. There is real need at this time for international planning by the governments of the various nations of the world. It may well be hoped that government planning will not displace private planning but supplement it and give such control as will bring results more in harmony with social well-being.

The technique of international negotiations is becoming an important part of international planning by governments. Whoever does the international planning, the right starting-point is a full knowledge of the facts of the economic actualities and potentialities throughout the world. When the planning is done by private interests the work is done by boards of directors, who keep in mind the whole economic world and who make the best terms they can for themselves, and usually relates to one article. A question which has yet to be answered with respect to the technique of governmental planning is whether it is to be comprehensive or piecemeal. International agreements with respect to sugar and wheat are examples of multilateral planning. In these cases the effort is to make the plan geographically comprehensive although only one commodity is included in each agreement.

The sugar agreement is an example of reasonably successful world-wide co-operation of an industry. The fact that there is no market for beets and cane, excepting to the sugar factories, has been an important factor in making it relatively easy to organize sugar. Wheat is far more difficult to organize, and the success has not been so satisfactory even though it has had the co-operation of the principal wheat-growing countries of the world. One should not pass judgement upon the venture in government planning for wheat at this stage in its development, but perhaps a few comments may be justified. Readjustment in prices through production and export control is being undertaken for wheat with little reference to other phases of the international economic problems involved. A more comprehensive undertaking would endeavour to ascertain all the causes of this maladjustment before proceeding to make the readjustments solely in one line of production. There is an aspiration on the part of the Wheat Committee to bring about a reduction of wheat seedings in the European countries which have long been looked upon as the deficit wheat areas of the world, but which have in recent years expanded their production. Will not more comprehensive international planning be essential to the accomplishment of this end? All in all, when we take the Wheat Committee as an example of multilateral planning for one commodity, we are more impressed with its difficulties than with its possibilities. It has too little of the give and take essential to successful negotiation. This may in part at least be due to the character of the objectives which have been held in mind, but the difficulty arises in part out of the limitation involved in one-crop planning. The idea of working out a plan for the wheat production of the world along lines of maximum economy when viewed both from the standpoint of the producer and the consumers, and taking into account other commodities which may be substituted for wheat, has been hinted at in the Committee but has not had a cordial reception. The Committee has been working on the immediate problem of reducing the world surpluses which depress prices. In this undertaking the Committee has made little headway, but, now that the turn of the season is lending a hand, this problem may disappear and the Wheat Committee may be in a position to render a service in planning a world-wide wheat economy co-ordinated with other lines of production and exchange mutually beneficial to all the nations of the world. It would appear, however, that, to be effective, geographically comprehensive planning will need to become comprehensive with respect to commodities.

Comprehensive planning involving all products in all nations is not in the foreground at this time. It would seem that greater progress, for a time at least, may be made through piecemeal planning, where a limited number of countries deal with the products of vital interest to themselves. Bilateral conferences looking towards agreements affecting the two countries participating in the negotiations give promise of success. In these the geographic scope is narrower, but as a rule they are rather comprehensive with respect to commodities. The issues are more specific; both sides of the equation of exchange are considered. The give and take of the agreements can be easily visualized in terms of specific commodities. The countries most willing to plan their economic relations may do so without waiting for other countries which are not ready to act.

The view may be held that bilateral treaties fixing quotas lace the trade of the world into a strait jacket which enhances the difficulties now met on every hand in the form of tariff barriers and quarantines. On this point there will be ground for optimism if the use of quotas may be considered as a temporary means to a permanent end which ensures greater freedom of trade. The trade barriers of the world have paralysed world commerce. There is little hope that these barriers will be removed in any one country without some form of compensation of a specific nature. The hope is that through bilateral treaties providing for quotas with reduced import duties, without bringing into play the now obsolete most-favoured-nation clause, the tariff barriers may gradually be reduced to reasonable levels. Comprehensive agreements on tariff revision involving all the countries of the world and all commodities, are not probable in the immediate future. Specific agreements are possible and are now in progress. If the specific bilateral agreements are based upon full knowledge of the economic geography of the world, both actual and potential, the outcome of an adequate number of bilateral or trilateral agreements may yield the same results as might be attained under ideal conditions by one comprehensive international agreement. Furthermore, once the trade barriers have been negotiated out of existence, the commerce of the world may again take a normal course with some of the old-time freedom and scope for private initiative, with this difference, let us hope, that national welfare and the peace and well-being of the people of the world will find a larger place than in the past in the motivations of international trade, along with a legitimate opportunity for the profit motive. This will mean greater government control than characterized the commerce of the past century. At any rate, the hope is that through numerous bilateral trade agreements the nations may ultimately find their way to the maintenance of that amount of international trade for each nation which will supplement the national economy and give the people of each nation its maximum well-being.

Whether or not the national objectives in international trade might have been attained through a greater freedom for individual and corporation planning in the period since the World War, the one thing to be hoped for in the immediate future is rational planning made effective through international agreements. Government action will be necessary at least until the irrational trade barriers have been removed and the home industries have recovered from the abnormal conditions which have been created by tariff walls. The need is for clearly visualized plans carried out through a series of years which will give time for adjustments in the home industries. The industries of greater efficiency will require expansion, those which produce at excessive costs will have to be reduced or even dismantled. The industries and the consumers which are to benefit by the change may well afford to help pay a part of the cost of dismantling those industries which have been unwisely encouraged to come into existence. Whoever may have been responsible for the present plight of domestic industries and international trade, all concerned will need to take a friendly hand in removing the complex network of entanglements which depress industries and retard international trade to the detriment of the people of every nation.

It is easy to arrive at these general conclusions, but the accomplishment of the result desired will take much time and the action must be based upon a full knowledge of the facts of the economic life of the world.

THE FACT BASIS OF INTERNATIONAL PLANNING

The negotiations intended to attain this desired end will need to be based upon a better knowledge than is now available of the facts of the actual and potential economic geography of each nation and of the world as a whole. The preparation of the fact basis of national and international planning for agriculture is the task of first importance at this time for the agricultural economists of the world. But in this work it should not be overlooked that common-sense planning for agriculture is not a thing apart from rational planning for the whole economy of nations and their international relations. Agriculture must be seen in its entire setting and in all its relations, economic, social and political, national and international. While the work of those who negotiate international agreements may proceed on a piecemeal basis, this procedure needs to be in the light of a comprehensive knowledge of the whole world setting. This means that the work of the economists must be comprehensive enough to enable the leaders of each country to see how to supplement the national economy with an amount of production for the foreign market which may be exchanged for that kind and quantity of foreign goods and services which will add to the total annual income available for the maintenance of the living standards of the people and for the maintenance of the public economy of the nation.

The providing of a clear and comprehensive fact basis of international planning for agriculture is a challenging task for the agricultural economists. This involves a clear presentation of the facts relating to each of the agricultural commodities in every part of the world. In turn each crop must be shown in its relation to other crops. The facts must be put into a setting which will make their significance clear to the leaders in international negotiations who want to know whether they should produce a given article for themselves or secure it through the exchange of some other product which can be produced at home. Theories will not serve this purpose. Concrete facts are required. If the economist is to have a place in the sun he must provide these facts. This is a task involving many difficult questions of procedure; but clear thinking and careful analysis of the facts which can be obtained will yield invaluable results. The international trade agreements which have been negotiated during the past year have made unusual demands upon the economists associated with the embassies involved. It is to the economists that the diplomats are now turning for facts on this basic question of what we should buy in order that we may sell.

In the study of the question of 'comparative advantage', which goes to the root of this whole question, there are many things to consider. The influence of soil and climate is, of course, basic. Out of this and the market demand arises the particular combination of enterprises which make up the commercial economy of a given farm. The interrelations of these enterprises in the farm economy, both from the standpoint of soil utilization and from the standpoint of the economical utilization of labour and equipment, are often such as to make the finding of specific costs an ineffective method of ascertaining whether or not a given product should be produced at home or secured through exchange from abroad. Cost accounting will, however, prove invaluable in determining the relative profitableness of competing enterprises, and hence in determining whether or not a given country should produce at home or purchase a given commodity from abroad.

The starting-point in rational international planning for agriculture is a thorough knowledge of the economic geography of the world. There is a large body of background facts of an unchanging or slowly changing character which need ever to be held in mind in appraising the fluctuating or rapidly changing elements in the world economic situation. While it is true that at a given moment the changing elements in the picture may have greater interest to the farmer or the tradesman because of the effect upon the immediate price situation in which he is interested, these more permanent background facts are of primary importance as a basis of building national policies.

Some of the facts of economic geography, which are basic to a knowledge of comparative advantage essential to the international planning of agriculture, have been outlined as follows:

1. Climate, temperature, rainfall, wind, snow, hail, prevailing plant diseases, and insect pests.
2. Soil, topography, and land utilization.
3. Population, density, character and standard of work, and standard of living of the agricultural people in their relation to types of production which occupy the land.
4. Tenures, credits, and agricultural organizations, &c., as they affect the place of a given nation in the world economy.
5. The equipments, techniques, and special skills of those in various countries who produce for the international market.
6. Competing and supplementary agricultural enterprises and the relative profitableness of alternatives, as shown by recorded experience.
7. Other occupations competing with agriculture in offering opportunities. The relative profitableness of the opportunities alternate to agriculture.
8. The transportation facilities and the other agencies which help

in effecting the movement of products from surplus to deficit areas. The costs of these services.

9. The present production of each commodity in each country of the world should be displayed on maps as well as in statistical tables such as will facilitate the visualization of the world situation. Along with this should be shown the topography of world prices. This should be annotated with the facts with regard to artificial influences which may be operating in the various countries to stimulate or depress production. The effect of artificial control of the productive forces upon world trade and upon national wealth should be shown.
10. The facts regarding the consumption of each commodity in each country should likewise be ascertained and put in a form easily available to the statesmen dealing with the problems of international planning. Readjustments in trade relations may modify habits of consumption of a people, hence trends with respect to consumption of specific articles should be studied. Here is a field where much new statistical work is needed.
11. The negotiating of international planning for agriculture cannot be carried forward independently of planning for the industrial occupations as well. If some countries import more agricultural products of one kind than they export of another, the balance will have to be paid in services or in products of forests, mines, or manufacturing industries. It is obvious therefore that a knowledge of all phases of the economic geography of the whole world is essential to the international planning for agriculture.

The economic geography required as a basis of planning will need to be far more complete than anything which has ever been produced. All the factors involved will need to be so focused as to bring out in clear relief the economic facts of 'comparative advantages' which after all constitute the foundation of rational international planning of production and its concomitant of international trade. This task involves important improvements in the statistical work of all nations. The World Census of Agriculture should be promoted with this problem in the foreground in preparing the schedules. The principle and the practice of accounting must be applied to the problems of comparative advantage. There is need for greater uniformity of method and of purpose in the agricultural, statistical, and accountancy work in the various countries of the world.

Along with this more precise material, the more general data should be used which point in the direction of the truth regarding 'comparative advantage'. For the present the general information is about all there is available. Fortunately the facts which the individual farmer needs to know as a basis of good farm management and marketing, and which many farmers know from study and experience, are facts which provide an important part of the basis of calculating comparative advantage. But it is only when the facts well known by individual farmers in a vast number of individual areas are used along with the commercial facts and are woven into a comprehensive picture showing the comparative advantage of each area for a given product that they become available for the use of those who negotiate international agreements affecting agricultural production. Information of limited geographic scope is often misleading. Fortunately the studies essential to individual planning on the part of the farmer and the studies essential to rational international planning of agricultural production can go hand in hand, so far as the collection of primary data is concerned. Thus the new work can be done without abandoning the work of immediate use to the farmer. The thing of greatest importance is that the research men in agricultural economics in all countries use comparable methods, so that the materials from all lands may be used effectively in putting together the elements of the world picture.

If the economists are successful in presenting the facts in such form that the economic vision of the negotiators of international agreements may be clear, accurate, and comprehensive, they will have done their part in the international planning for agricultural production.

It is not the task of the economists to tell the nations what means to use in accomplishing the desired results. The political entanglements involved in international negotiations will need to be dealt with by those who know the art. The task of the economist is to prepare the fact basis which is essential to rational action on the part of the negotiators. When the men of action who are in control of national affairs are bent upon a given course, the greatest service the scientist can render is to throw a maximum of light upon the road that lies ahead whether the course be right or wrong. The economist will be of no avail unless the light from the lamp which he holds falls within the line of vision of the men of affairs.

CONCLUDING SPEECHES

Dr. Laur.

Ladies and Gentlemen,

I hope you will allow me to give first of all my general impression of our discussions and then to go a little more into the details of the problems we discussed to-day.

One notion went like a golden thread through all these lectures: *The basis of all state policy has to be the preservation of the farming population.* This has become particularly clear to the nation whose hospitality we are here enjoying. In Germany the preservation of the peasant population has become the foundation of all economic policy. The representatives of agriculture from countries where the fight for the full recognition of the agrarian population is still in full swing gratefully acknowledge this ideal conception. Only a few years ago the opinion was predominant that the well-being of mankind depended on cheap foodstuffs. To-day it has been realized by science that there is something more important than cheap foodstuffs, viz. the necessity to preserve the farming population. International relations and agreements must be dominated by the right of every nation to preserve their peasant population.

Mr. Ashby in his splendid paper has uttered certain doubts as to the economic efficiency of the peasant system. But I venture to say that wherever the conditions for intensive farming exist the economic efficiency of the peasant system is beyond any doubt. May I remind you that in Switzerland the reports on productiveness issued by the Swiss Peasants' Secretariat have conclusively proved for more than thirty years that the peasant farm is superior to larger holdings in respect of output and income. Holdings larger than 30 ha. had, for example, in 1931 an output of 834 francs per ha. while that of holdings between 3 and 5 ha. amounted to 1,717 francs per ha. But it is only under certain conditions that the peasants can compete with the larger holdings. One of these conditions is technical training. One must look after the peasant by general education, by technical training in agricultural schools and by other means of education. Furthermore the peasant must have at his disposal well-organized co-operative societies. Only where the peasant gets the necessary backing from his co-operative society will he remain in the running. These conditions are not fully given in all countries and especially not in Great Britain, and that explains the criticism heard.

It was also interesting to find that the idea of planning has made progress in all countries. The Governments have to-day accepted solutions which, a few years ago, would have been considered utopian. Thus it may perhaps be just as well at the end of our Conference to stress again the fact that planning has its limits, especially in farming, and one ought not to accept the view that it is possible to treat the peasant farm simply like a cell of state economy. The peasant farm will retain its individuality for all time. To-day the peasant farms are still predominantly connected with the market, in all countries except the Soviet Union, but even there in parts. I had prepared for the postponed Conference of last year a paper on the proportion of the agricultural production used for the personal demands of the peasant. The results showed that 93 per cent. of the production in Denmark is marketed, 83 per cent. in Switzerland, 76 per cent. in Norway, even in Roumania 57–61 per cent., and in Sweden in the farthest north 54 per cent.

In Germany the situation is similar to that in Switzerland. In spite of all planning the peasant therefore remains an *entrepreneur* dependent on the market. Here I have to underline a sentence lately pronounced and attacked. 'The peasant is an *entrepreneur* and you cannot change him into a producer of output who does not care a bit for what is going to happen as a result of his work.' This holds good also for farms free of debts and even for farms managed by *Erbhof*[1] peasants. The *Erbhof* is fortunately cut off from land jobbery, the peasant is no longer allowed to speculate in land. But he remains an *entrepreneur* dependent on the market, and it would be a bad thing indeed if people would try to change the *Erbhof* peasant into an '*Erbhof* beneficiary'. It is hopeless to try and induce the peasant continuously to work against his own interests out of regard for the interests of the community. Those who know the peasant's character will also know how capable the peasant is of doing extraordinary things in years of high national emotions, e.g. the Swiss peasant at the outbreak of the War. But it is impossible in the long run to deviate from the principle of profitableness. The only way to make the peasant work in the common interest is for official planning to try to combine the private interest with that of the public and the State. Thus planning obtains a twofold importance. It has to guide agriculture on the lines of common interests, but, at the same time, it has to serve the private interest.

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[1] i.e. farms which cannot be sold or mortgaged and are inherited by the first son. The other children have no right of compensation but, speaking generally, only of maintenance.

It did not seem to me to be out of place to draw your attention to these facts by summing them up in this last debate. After all, if this Conference is really going to serve practical purposes and not only agricultural theory we have to try to draw practical conclusions.

The papers on population statistics have cast a dark shadow on the future of our agriculture. If the growth in population is really going to take on this shape we have to ask ourselves: What will be the future fate? It is in this connexion that I should like to stress the great importance of animal production. The over-production of agriculture can only be eliminated by an *increase in the consumption of animal products*. Pig-fattening out of 100 vegetable calories leaves only 35 for human food, milk perhaps only 29, and the fattening of a cow two years old not more than 8. The destruction of calories by cattle-breeding, that is the future! But this demands consumers in a financially sound position, and thus we find as second factor of the future of both the farming population and agriculture an improvement in the standard of living of the broad masses of the population. Animal products will obtain a greater share in consumption only if it is possible to increase the general standard of living. Only then will it be possible to equalize the disadvantage resulting from the adverse growth of population by a higher consumption.

Here we have to add international planning. We are all connected with each other, and it will be possible to solve many problems only on an international scale. Mr. Lloyd in his excellent paper which we heard to-day gave you a clear picture of the extent this international organization has already reached. And yet all these are only first groping attempts and we predict that, after this crisis, the international organization will have achieved a considerably greater importance than to-day—I should even like to add my conviction that in future we shall scarcely get out of periods of crisis without the international organization of production and distribution. These periods will always return after short improvements.

Amongst the measures taken so far the wheat agreement—as you know—holds first place. What was done in London was a first attempt. The first agreement could not be concluded on a basis of the most useful policy but chiefly on the basis of arousing the least resistance. We who helped to its conclusion were well aware of its weakness, its gaps and deficiencies, and yet in London a fortnight ago there was unanimous opinion that the agreement had exercised a good influence and that, but for the agreement, the situation on the world wheat market would have been considerably aggravated. We are now trying to improve this agreement by introducing lower quotas in relation to the requirements. A certain reserve will be placed at the disposal of the Committee, which will have the right to distribute it. Quarterly quotas will replace the annual ones. All these are considerable improvements. But even if the Governments agree to these proposals this agreement will not yet be complete. There still remain some gaps which will have to be closed later. The opinion, expressed here to-day, that it is essential to restrict the cultivation of cereals in the old European civilized countries is, I think, erroneous. Even if the area under cultivation were restricted the improvement in technique in Europe would inevitably result in an improvement of the output. The restriction has to be enforced primarily in the transatlantic countries, if indeed it is going to happen at all; for there the soil is cheap and the extension of grain cultivation has been much greater. But even there the restriction will be a thankless and difficult task, and we do hope it may be possible to avoid this restriction by the transfer of a great deal of the grain to animal products.

Here I should like to draw your attention to still another international problem, unmentioned so far, which I believe to be of decisive importance in the present situation and in the future of the white farming population. This is the *problem of fats*. If you follow the statistics—as I have done—of the development in the consumption of fats, and if you come to see what enormous quantities of tropical vegetable fats are consumed in European and other countries; and then think, on the other hand, how much grain would be necessary if only a small part of these quantities were replaced by butter, you will realize that the fundamental cause of over-production lies in the question of fats. Only if the countries interested in the production of milk, pigs, and cereals, especially feeding cereals, bring about a greater consumption of butter and lard instead of vegetable oils, will it be possible to maintain an intensive agriculture. If this is done there will be no difficulty for us to consume the cereal surplus of the transatlantic countries. I could prove that by figures. But as I must not trespass too long on your time I will just stress the fact again that the fat problem is a problem of primary importance. It is easier of solution than others, as we can, helped by legislation, exercise here a deep and thorough influence. I am glad to state that the fat economy as organized in Germany may be considered an ideal solution. Moreover, if the other countries follow on similar lines, we may arrive at a solution of the fat problem less by international agreements than by similar measures of every individual country with due consideration to the national conditions.

Herewith, ladies and gentlemen, I will come to an end. But I should like to express the conviction that *the nations and their well-being are mutually connected to-day more than ever* and that every suffering people casts its shadow on the whole of world economy. He who weakens and damages his customer damages himself. If we want to help ourselves we have to help the others. I am speaking here as the representative of a country the economic conditions of which are generally still above those of other countries. But I am convinced that we can keep up my country's good position only if the well-being of other nations is again increasing. That is one of the reasons why I as a Swiss peasant secretary and peasant leader thought it an important task to collaborate in all international movements concerned with improving the agricultural situation in other countries. Out of this improved agricultural position there will arise the recovery of industry, business, and trade, and the equilibrium between production and consumption.

May this Conference which has produced such important thinking on the international situation be a brilliant star leading the nations to a happier future!

DR. WARREN.

Mr. Chairman,

May I make a few miscellaneous suggestions?

First: I should like to suggest that the efforts of Europe to be self-sufficient in agriculture are quite as disturbing to North and South American agriculture as are the American tariffs to European industry.

Second: It is far easier to destroy than to build up. We are in the stage of crop destruction. Russia learned that while she could kill a five-year-old horse in a second, there is no way to create one in less than five years and eleven months. We will see later how the hog-killing programme of the export countries works; several of these countries have now killed the hogs. We are entering into a period of hog shortage. I believe that the rise in the purchasing power of the hogs will be very violent. This will stimulate such production in consuming countries to the later detriment both of themselves and of the export countries.

Third: May I suggest a few plans for planners?

1. Let us develop facilities and men for research work so that we may develop the scientific facts of economics of which we have yet discovered all too few.
2. Let us teach these facts without propaganda to farmers so that

they may plan more wisely. Thus far I think the farmers have planned production more wisely than the Governments.

3. If the Governments are to plan our enterprises, let us train men for government service so that the government planners will know more of economics to the end that they may know, or at least guess more intelligently, what the effects of their acts will be.

I think this has been an excellent conference both as a stimulus to science and to friendship—two things badly needed in this sick world.

DR. MAX SERING.

The speakers to whom we have just listened were right in mentioning how fruitful our exchange of ideas has become through the fact that we do not restrict our discussions to problems of agricultural science in the more limited sense of this expression, but that we endeavour to tackle all factors of importance for the well-being or misfortune of the nations. That is why we devoted a whole day to the discussion of farm organization and the rights of land-holding and another day to the problems of currency and international debts. I have gained the impression that this Conference is entirely convinced that all attempts to replace international capitalism by international or national planning are doomed to failure if we do not have a restitution of those moral and legal foundations without which peaceful harmony and co-operation of the nations is impossible. It was the task of my introductory paper to draw your attention to this fact, and again and again we found in the various papers the notion that whatever we may do as separate nations is bound to fail as long as great parts of the civilized population of the world are drowned in impoverishment for reasons other than economic. We have heard from Mr. Laur that even in Switzerland, though she is a country full of capital, industries, and great tourist traffic, certain branches of the economic life are languishing and that in spite of the fact that the Swiss Peasant Association led by Mr. Laur has succeeded in establishing Swiss policy for the preservation of the farming population. Troublesome worries are dwelling in the huts of the cattle-breeders up in the mountains, as the foreign customers have no longer got the necessary means to support the high-grade breeding on the old standard. Similar complaints came from Holland; similar considerations formed the basis of the excellent remarks of H.E. the Minister Frangeš when he gave a description of the distressing conditions in those Balkan countries of which he is the representative. Thus I should like to draw your attention again to the fact that as a consequence of the War and the Peace Treaties the wealth and the purchasing power of the masses have been ruined in Germany and all the other central and south-eastern European countries. But I should also like to stress the clear conclusions at which Mr. Schumacher, Mr. Schacht, and other speakers arrived and which were approved of in many conversations: Mankind will not recover before those causes just intimated have been removed, before the vast amount of unproductive debts bearing far too high an interest are eliminated and before all nations are filled with that spirit which we may call fair play, that spirit which—I think I am safe here in judging others by myself—has given to all of us a new hope. Representatives of—if I am well informed—twenty-one nations are meeting here, and how well have we all understood each other though each of us knows his deepest sentiment to be the love of his own country. We have understood each other well because we have shown mutual respect and sincere interest in other people's individuality, because we are devoted to those ideals which are cherished and guarded by scholars, the desire for truth and for justice and the courageous acknowledging of what is known to be true and just. I am absolutely convinced that this stimulating Conference will, by the moral—not only the intellectual—forces, serve to a better understanding of the nations, to a higher esteem for the individualities of the others, and to an elimination of the bad relics of the War which keep the nations in a hostile tension.

Finally, I believe that the most valuable result of this Conference has been to strengthen sympathy and the will to mutual understanding. It is with this conviction that we may look back with satisfaction on this Conference.

REPORT OF SPECIAL GROUP MEETING ON MILK MARKETING REGULATION

Speakers: U.S.A.: M. C. BOND, Cornell University, N.Y.
Germany: O. VOPELIUS, Berlin.
Great Britain: A. W. ASHBY, University of Wales.

M. C. BOND.

The United States regulations.

In the United States the first Federal provision to regulate the dairy industry came as part of the 'Farm Act' of 1933. This Farm Act contained three important sections: one dealing with the revaluation of the dollar, one with farm credit, and the other with the adjustment of agricultural production to reduce supplies and obtain a 'parity' price for farmers. That Act also specified those basic commodities for which production control plans could be put into operation. The Act also provided for so-called 'marketing agreements', and these agreements were the means which were employed for improving the position of dairy products. No marketing agreement was put into effect for butter or cheese. A form of marketing agreement was put into operation for evaporated milk, and prices for evaporated milk were announced by the manufacturers. A similar type of scheme was put into effect for dried milk. Fluid milk, however, was cared for by special marketing agreement or licence around each market.

The first Milk Marketing Agreement was put into effect for the area around Chicago, Illinois, August 1, 1933. During the remainder of 1933 thirteen other cities worked out local plans for marketing milk through this co-operation with the Secretary of Agriculture. These early agreements contained provisions for prices to consumers, prices to stores, and prices to producers. The distribution spread was determined by establishing producers' and retailers' prices.

Distributors were anxious to get these special agreements because they provided for relief from price cutting. Price cutting was common in many markets and each market attempted to get first consideration. Producers' organizations joined with distributors in an effort to get immediate assistance.

The confusion which resulted brought about a considerable amount of delay, and only fourteen agreements came into effect by the end of 1933. By that time difficulties were arising in many of the markets. Many of the distributors were selling below the schedule of prices, and on January 1 the Chicago marketing agreement was cancelled. All agreements and licences were cancelled January 30, 1934, and a new policy established eliminating resale price schedules.

Co-operative associations were represented and usually held an important place in each of these agreements. In general from two-thirds to three-quarters of the farmers and a similar proportion of distributors signed the agreements indicating their desire for a milk marketing agreement. Later, however, some of these marketing plans became effective through the issuance of a federal licence without the signing of an agreement.

Some of the important policies of the administration.

(i) All distributors were licensed. In some instances licences were issued without having the signatures of producers and distributors to a marketing agreement.

(ii) Prices to producers and resale prices fixed the spread which the distributors obtained. No resale prices were set up in the revised licences.

(iii) In the early agreements no provision was made for price differentials for milk sold through stores. This caused dissatisfaction in markets where a spread of from 1 to 3 cents per quart had been the practice. Elimination of resale prices improved this situation.

(iv) The resale price schedule usually provided for uniform prices throughout the year. This was a change from the existing practice in some markets.

(v) Smaller towns had commonly sold milk at lower prices than the larger cities. The tendency under the agreements was to raise these prices.

(vi) New producers were limited in their entry to market by being required to take a lower price for a period of months.

(vii) Most of the agreements contained some sort of basic rating plan to adjust production to consumption.

(viii) The geographical limits of the sale area and the production area were set forth. Production areas were not fixed in the revised agreements and licences.

(ix) Agreements were signed by both producers and distributors. Later in some cases no agreements were obtained but licences were issued to distributors.

(x) Agreements were administered by a Board or Council made up of distributors and producers, but, in the final analysis, administered by a man who was appointed by the Secretary of Agriculture. By

January 31 all licences were revoked, and after that for the next two or three months new licences were issued for most of these markets, and gradually new agreements were drawn up for the signatures of producers and distributors.

Markets in which these agreements were put into effect.

Chicago was the first and largest market. Other large markets were Philadelphia, Baltimore and Boston, St. Louis, Detroit, and Los Angeles. Several smaller markets have marketing plans. No agreement was put into effect for New York, which is the largest market in the United States.

Enforcement of the provisions of the licence was one of the largest problems. Although still a problem, enforcement was greatly simplified by the elimination of resale prices. Farmers who do not receive the stated price are usually willing to complain, but consumers who get a discount or special consideration are not inclined to complain.

Parallel with the development, Federal Milk Marketing Agreements legislation occurred in several states providing for State Milk Control Boards. New York was one of the first to pass such an Act. This was put into effect quickly. Within ten days after the Act was passed the first orders were issued. In other States new legislation has provided for Milk Control Boards, and in several cases these Boards have taken over the work which might have been done by Federal Milk Marketing Agreements. There are now fourteen such state laws. A number of states passed these laws this year.

The New York Milk Control Board had a mandate from the legislature to set retail prices and was permitted to set prices to producers. Resale prices were set at the existing quoted price.

In May 1933 an increase was made in the schedule of resale prices and about the same time the first price to the producers was fixed. The distributors' spread was determined by that action of the Board and the way opened for considerable legal difficulty. Later, prices to consumers and to stores were increased by the Milk Control Board so that finally the retail price which was 10 cents per quart in New York was increased to 13 cents in July 1934. The price in 1927 was 16 cents a quart; it dropped to 10, and the Milk Board raised it to 13. The retail price in other markets of the State is lower.

The result of the price-fixing by the State Board was to increase the prices paid to producers for fluid milk. From April 1933 to April 1934 in the centre of the milk shed (about 230 miles from New York City) the price of fluid milk increased from about $1.30 to about $2.25, and the pool price paid to producers from $1.04 to $1.48 per

100 lb. Thus farmers were materially benefited by the increase in prices, and it appears obvious, in view of the slow increase in the price of butter and cheese, that the fixing of these prices brought about an increase in prices to producers more quickly than would have occurred on a competitive basis.

O. VOPELIUS.

The German regulations.

The early milk marketing position. In order to understand the milk-marketing scheme of to-day and to have a right of judgement about its aims and the progress caused, we must in the first instance consider the condition of the German milk-market in the years 1932 and 1933. The producers' milk price had gone back considerably from 1929 in consequence of the low butter prices and the constant underselling by the dealers on the fluid milk market, so that the farmer was often paid only 7 Pf. per litre of manufactured, and 10–14 Pf. for liquid milk. The result was that many farmers could not go on with their trade and had to give up the farms which had for generations been in the possession of the family. Only the farmer with direct interest in the liquid milk market had at that time any sort of price security through the Reich Milk Law of 1931, introduced in 1932 in southern Germany (Bavaria and Baden) and in Berlin. This law made it possible to unite milk producers and creameries for the purpose of price agreements, under control of the various states. Dealers were not included in this market organization (*Zusammenschluss*). In consequence, the continual underselling could not be suppressed and no correction of the wide price-spread was possible. Finally in the summer of 1933 the Reich Law was altered, providing for the inclusion of milk-dealers in the organization. At the same time a Reich Milk Commissioner was appointed and charged with the regulation of the whole milk marketing system. While hitherto the regulation of the milk markets was an affair of different states, it was now centralized in the hands of a single commissioner, this method of central regulation proving very successful.

The organization of the market. The Reich Milk Commissioner first regulated the chaotic milk market and then tried to correct the price for manufactured milk and milk products. In June 1933 he began building up an organization which was mainly accomplished by April 1934 and found its legal foundation in a legal decree of the Reich. This organization was built up on the base of economic units, such as liquid milk markets and districts of equal conditions of milk production. Several of these units were joined together into a local milk supply association or *Milchversorgungsverband* and 3 to 8 local associations into a district association or *Milchwirtschaftsverband.* Germany was thus divided into 15 milk marketing districts, and 63 sub-districts, on purely economic grounds and regardless of political boundaries. The head of this milk marketing organization is the German General Milk Board (*Deutsche Milchwirtschaftliche Vereinigung*) in Berlin. The whole is based on the principle of leadership, the leader of each sub-section, local or district, having a board of directors and a price committee to advise him.

The milk producers and the creameries as well as the dealers are united in this organization.

Problems of the milk marketing organization. The producer- and consumer-prices for liquid milk were stabilized and fixed in correspondence with the local needs. According to the size of the German cities and towns the consumer-price ranges now from 18 to 26 Pf. per litre. The price is stable and can only be altered by the leader of the organization, in co-operation with the price-committee, according to the stipulations laid down in the scheme. The self-distributing farmers (the producer-retailers) were nearly everywhere forced to give up the distribution of their milk and to deliver it to creameries, or in the case of certified milk to leave the distribution to retailers. To save the costs of unnecessary transport, the bulk of the milk is treated in creameries and from there delivered to the retailers. Thus, in so far as their work was economically inefficient, the wholesale traders have been practically eliminated from the market. The organization further is out to introduce shops specializing in milk, butter, cheese, eggs, &c. Another object of the market regulation is a quality improvement of milk and dairy products, as for instance by a general application of payment on quality and by examination and standardization of butter and cheese. The butter market is systematically regulated in such a way that the whole surplus is bought up and stored. The market organization has no right to transact any business itself, so that a special organization under the direct supervision of the Reich has been formed to adapt the butter supply to the demand. Butter production has not been restricted, as Germany is still in need of butter imports. The cheese market, on the other hand, is regulated by adapting production to the existing demand.

Creameries. An important task of the marketing organization is to give help and advice to the creameries, of which there are about 10,000 in Germany. Active advice on quality improvement and book-keeping is given, regardless of the character (private or co-operative) of the enterprise. All creameries have to submit to the orders of the organization and are supervised as to rebuilding, re-equipment, and in other business matters. A uniform book-keeping has been introduced in all the creameries.

Financial and administrative control of the organization. The organization is financed with the help of contributions from the producers, creameries, and retailers. The administrative fee is $\frac{1}{25}$–$\frac{1}{50}$ Pf. per litre of milk sold or manufactured. In addition an equalization fee of 1 Pf. on every litre of the traded liquid milk is raised, in order to benefit the producers of manufactured milk. A half Pfennig hereof goes to the district association, the other half to the head institution in Berlin. The latter uses the money for general market regulation, as for instance the assignment of milk to the different branches of dairy production.

Results of the market regulation. As a result of the new market regulation, the price-spread for fluid milk on the market has been reduced by 20–40 per cent. since June 1933. This was achieved partly by eliminating the economically superfluous wholesale traders and partly through the lowered cost of distribution. The diminished price-spread on the other hand made it possible to give the producer a better price for his milk, without the need of raising the consumer-price at the same time. The following comparison may exemplify this:

Milk Prices in Hamburg

	Before market regulation April 1932	*After market regulation April 1934*
	Pf.	Pf.
Consumer-price	23	23
Producer-price	12½	15
Equalization fee (to the costs of the liquid milk producer)	..	1
Price-spread	11½	8
Reduction of the price-spread	..	30%

An ordered milk market is not the only achievement of the market regulation. The prices for manufactured milk have been improved to the amount of 1–2 Pf. per litre and now average in Germany 10–12 Pf.; formerly the farmers living in remote parts of the country did not get more than 7–8 Pf. per litre. By keeping the German butter market secure from the influence of price fluctuations on the world market, the German dairymen saved 250 million marks; for without the monopolized regulation of the butter market the German butter price would have followed the price movements of the world market and would have reached the low level of RM. 80.0 per hundredweight in the spring of 1934. The market regulation, however, made it possible to maintain a uniform butter-price of RM. 130.0 per hundredweight during the past winter and of RM. 125.0 per hundredweight during this summer. The difference between the German and the world market price is balanced by means of import levies raised by the Reich, so that the German price is now independent of the world market quotations.

The butter market undergoes, as already mentioned, no restrictions as to the production. The cheese market on the other hand is regulated solely by production control; the surplus of soft cheese is for instance restricted by forcing the farmers to use more skim milk for feeding purposes, as otherwise this milk would have to be utilized in the production of soft cheese (Limburger).

Manifold must needs be the ways and measures of price regulation, but the main object, to give the farmer a better price for his milk and at the same time to guarantee the consumer a fair and steady price for milk and dairy products, seems already to have been reached.

A. W. ASHBY.

The regulations in Great Britain.

In Great Britain we have practically a complete monopoly of the liquid milk market. At the worst of times, when we have had periods of short supply, the highest amount of liquid milk imported has been only 1 per cent. of the annual supply. We have, however, a very large quantity of imports of dairy produce and it is estimated that the milk equivalent of imported dairy produce amounts to something like double the amount of the liquid milk production inside the country. When counting both liquid milk and milk equivalent we are producing roughly about one-third of our total requirements. For ten years or more, from 1921, the milk sold from farms in England and Wales was sold under a collective agreement, made between the Farmers' Union and certain associations representative of manufacturers and distributors of milk. From about 1921 to 1929, though collective agreements worked very well, the agreed contracts were not signed by 100 per cent. of the farmers or of the dealers. But in some of the years I think it would be true to say that the terms of as many as 90 per cent. of the contracts for the sale of milk were made fairly close to the terms of the collective agreements. About 1930 there came the slump in prices of butter and cheese and other milk products, and that slump became very heavy in 1931. The prices of cheese and butter were heavily depressed. Under the collective agreements the value of manufacturing milk had been determined by the price of imported New Zealand and Canadian cheese. Under most of the collective agreements the price of manufactured milk was determined by the price of imported cheese less 2*d.* per gallon, so that the price of the milk products imported began to make a great difference in the returns between those farmers whose milk was produced for sale to large manufacturers and those whose milk was mainly for the liquid milk market. Here I should explain clearly that we have never had any considerable class of whom it could be said that they were producing only for the liquid or only for the manufacturing milk market. Together with this slump in the prices of dairy produce there was a considerable development in milk transport. The use of the porcelain-lined trucks and tanks for milk transport by railway and also for road transport was rapidly developing. From 1931 onwards the milk dealers were tending to go out where milk was produced at a low cost, and where the farmers did not hold them to the collective agreements, and so broke the partial monopolies of the inside markets. In 1931 the Agricultural Marketing Act was passed. This Act gives the power to any group of producers to determine the conditions of marketing all their product. It provides that the producers may themselves present a scheme to the Minister of Agriculture and Parliament, which scheme eventually accepted becomes law. It also provides that in consultation with the producers the Minister of Agriculture can appoint a Reorganization Commission to draw up a scheme. In the case of milk this latter procedure was followed and a scheme was presented to representatives of producers. In the main they accepted this but made some modifications. That scheme was presented to the producers and about 95 per cent. voted in favour of it. It came into force last September. The first contracts under the scheme were made as from October 1 last year for the winter six months.

Under the collective agreement system the producers of milk had always refused to carry any responsibility for retail prices. They tried, but without success, to avoid the discussion of retail prices in the negotiations of the wholesale prices. On one or two occasions they were more or less parties to a statement of retail prices but in seven or eight of the cases they had no responsibility for them. The general condition as regards retail prices, wholesale prices, and producers' prices was that the retail price was divided 50–50: half to the producers and half to the transporters and distributors. The greatest variation was to about 51–49.

There is power under the Agricultural Marketing Act and the general statute law for the Milk Marketing Board to determine the resale prices of milk. No such prices were determined for the first contract. The wholesale prices were fixed for milk for the liquid market and a scale of values for milk for manufacturing purposes. Milk for butter or cheese or condensed milk for export was to be paid for on its parity with New Zealand and Canadian cheese prices; 9*d.* per gallon for milk for the manufacture of fresh cream, 8*d.* for milk for the manufacture of chocolate, 6*d.* for milk for the manufacture of tinned cream, condensed milk and milk powder, and 9*d.* for milk for the manufacture of any other milk products. Thus there was introduced a 'class' system of valuing milk for manufacturing, and the Milk Marketing Board now has the power to compel the disclosure of the actual quantities of milk used in each class. The real power of the Board here lies in the power to refuse supplies to any dealer of whose returns they have suspicion. Naturally the Board is having a little trouble on this score, but if buyers are threatened with withdrawal of supplies, and some are actually withdrawn, fair and honest returns will be obtained.

As regards retail prices, by the first contract these were left to be determined by the different Dairymen's Associations in their respective areas. A good deal of trouble arose because roughly 30 per cent. of the milk producers in England and Wales are also retailers of milk, and these retailers of milk are registered producers under the scheme. They have to obtain licences to retail and they have to pay a levy, sometimes two levies, to the pool which is finally distributed in prices to producers selling in wholesale quantities. Consequently they are very deeply interested in the retail prices fixed. I think the proportion of milk produced which is sold by these producer-retailers is about half that of the number of such producers, say 15 per cent. On the whole they are relatively small and some are very small producers. The position was that the wholesale prices were fixed for liquid milk and/or manufacturing milk, and it was left to the Distributors' Associations to fix the retail prices for different areas. Consequently, there was some uncertainty about retail prices, and much dissatisfaction. The Board tried to enforce the retail prices which were fixed, but could not effectively do so.

In the second contract period from March to September of this year, minimum retail prices for districts of three types were laid down in the contracts and also laid down in the producer-retailers' licences. The minimum prices are now fixed for areas with populations of less than 10,000, between 10,000 and 25,000, and over 25,000, plus a special price for the south-eastern district which includes London. The scheme of organization which was presented to the Minister of Agriculture included a recommendation for a Joint Milk Council, consisting on the one side of the producers' Board and on the other side of representatives of organizations of manufacturers and distributors, with representatives of the public interests nominated by the Minister of Agriculture and the President of the Board of Trade. There was no statutory provision for any organization of that kind when the scheme was adopted, and a special statute would have been required to set it up. In order that there should not be any break-down in the negotiations between producers and traders the scheme had in it an arbitration clause. For the period of one year's duration the producers' Board has to submit their proposals to certain persons appointed by the Minister of Agriculture. The case was presented last September, and again in March this year, and the arbitrators made their awards; but quite recently the producers' Board have fixed up the agreement for the coming year (to come in force October 1) with the buyers without any reference to the arbitrators.

Figures for the New Year.

Liquid milk. (*a*) *Wholesale price*: The crude average price for the year per gallon of liquid milk payable by buyers will be about 15*d.*, but the producers have to pay transport charges.

(*b*) *Retail prices*: These will be on the crude average for the year:

Small towns and villages of less than 10,000 inhabitants .	23¼*d.* per gal.
Districts 10,000 to 25,000 inhabitants	25 " " "
Districts outside the south-eastern region over 25,000 inhabitants	26 " " "
London area and districts in the south-eastern region over 25,000 inhabitants	26½ " " "

Manufacturing milk. This is valued in the same way as in previous agreements but there are changes in price in some cases.

As regards milk for liquid sale I estimate that during this year the position will be that the total amount of the retail price will be split between the producers and transporters and distributors at about 49 to the producer and 51 to the distributors, &c. It is difficult, if not impossible, to estimate the average pool prices—the final prices which producers will receive—for this depends on proportions of manufacturing to liquid milk, and on the proportion of manufacturing milk in various classes, and also on the levies made.

Scottish system. While England and Wales was operating a collective agreement system the south-west of Scotland had what was known as the Scottish Milk Agency on a voluntary co-operative basis. It worked for two years quite successfully until they began to ask for a price which the market could not sustain, then the pool more or less broke down, although the association still exists. Last summer a scheme was presented to the Minister of Agriculture and then to Parliament and started last December.

There was also another voluntary pool in the Aberdeen district of Scotland which is now being formed into a scheme under the Agricultural Marketing Acts. Other schemes are proposed and it appears that Scotland may soon be covered by local schemes. There is a reason for this. Because of the low price of cheese expected this summer and in fact realized, it became necessary to make some provision for the cheese-makers to get a part of the benefits accruing to producers of milk from the schemes which are being worked. Early in this year, therefore, arrangements were made for the Treasury to subsidize cheese-manufacture either on farms or in factories to the extent of about 2*d.* per pound, and that arrangement will last for two years. A special arrangement was made whereby the Treasury, through the Milk Marketing Boards, is in fact subsidizing the manufacture of farm cheese. If no such policy had been adopted the cheese-makers would have wished to make contracts for the sale of milk, and would have increased the amount of milk on the market. All England and Wales is covered as regards subsidy proposals. In some parts of Scotland they have to organize other schemes to get the benefits.

REPORTS ON THE ECONOMIC CONDITIONS AND POLITICAL DEVELOPMENTS IN VARIOUS COUNTRIES CIRCULATED IN ADVANCE OF THE THIRD INTERNATIONAL CONFERENCE AT BAD EILSEN, GERMANY, 1934

1. *Australia*	The Agricultural Crisis in Australia, by F. L. MCDOUGALL, G.M.G.
2. *Austria*	Agriculture in Austria, by MICHAEL HAINISCH.
3. *Bulgaria*	The Agricultural Situation in Bulgaria, by N. V. DOLINSKY.
4. *Denmark*	The Agricultural Crisis in Denmark and measures taken by the Government to alleviate the crisis (*with supplement*), by O. H. LARSEN.
5. *Esthonia*	Agrarian Crisis and Farm Relief in Esthonia, by the Agricultural Chamber of the Republic of Esthonia.
6. *France*	The Agricultural Situation in France, by MICHEL AUGÉLARIBÉ.
7. *Hungary*	The Agricultural Situation in Hungary, prepared by the Hungarian Group of the I.C. of A.E.
8. *Italy*	Italian Agriculture and the Crisis, by ARRIGO SERPIERI, Under-Secretary of State.
9. *Latvia*	The Agricultural Crisis and Latvia and government measures adopted to promote recovery, by Dipl. agr. M. VON BLAESE.
10. *Lithuania*	The Agricultural Crisis in Lithuania, by J. KRIKŠČIŪNAS.
11. *Netherlands*	The Agricultural Relations in the Netherlands, by C. F. ROOSENSCHOON.
12. *New Zealand*	Recent Economic Conditions in New Zealand, by Sir JAMES PARR, K.C.M.G., High Commissioner for New Zealand.
13. *Norway*	Norway's Agricultural Position, 1933–4, by S. SKAPPEL.
14. *Rumania*	Problems of the Agricultural Crisis in Rumania, by M. SERBAN.

15. *Spain* — Social Problems of Spanish Agriculture, by PASCAL CARRIÓN.

16. *Spain* — Agricultural Credit in Spain, by ANTONIO BALLESTER.

17. *Sweden* — Measures taken against the Agricultural Crisis in Sweden, by RUDOLF FREUND in collaboration with L. NANNESON and T. BJÖRKMAN.

18. *Switzerland* — The Agricultural Situation in Switzerland, by OSCAR HOWALD.

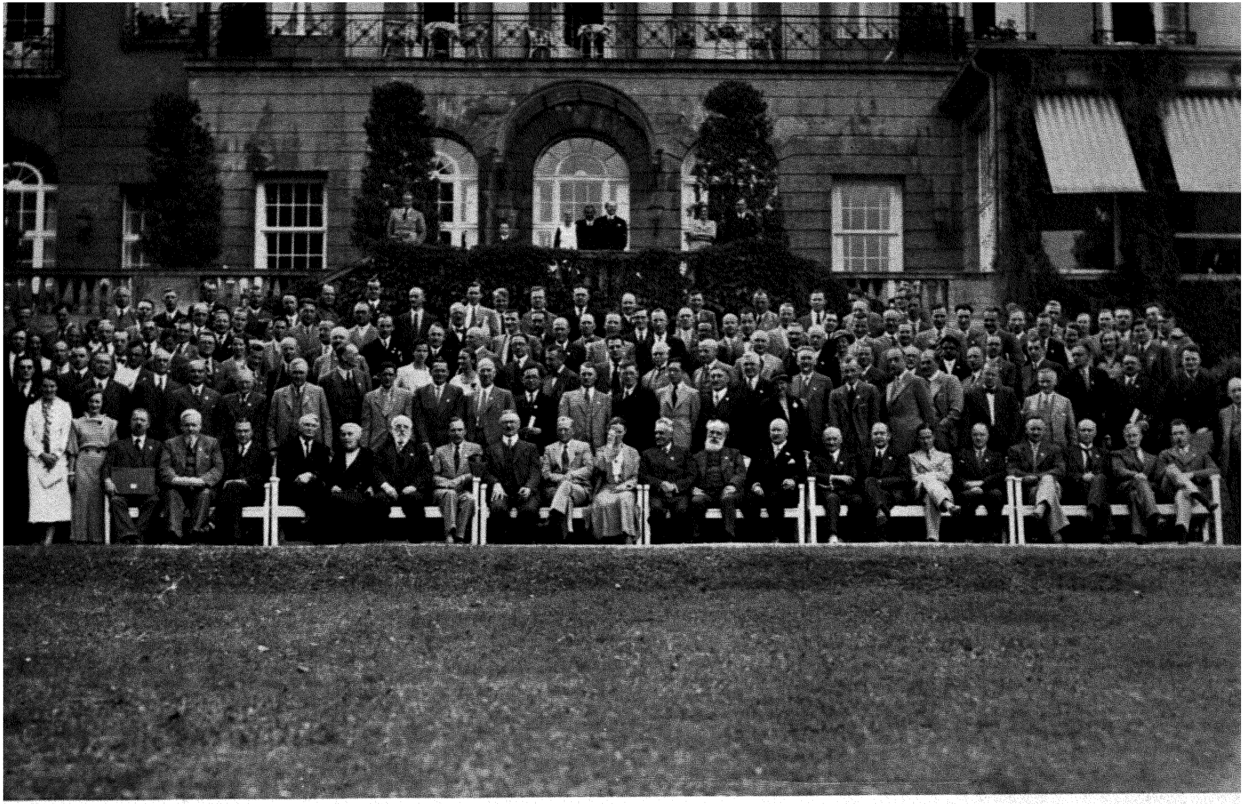
19. *Turkey* — The Agrarian Crisis in Turkey, by SCHEWKET RASCHID.

20. *Yugoslavia* — The Economic and Social Problems of the Agrarian Crisis in Yugoslavia, by OTTO VON FRANGEŠ.

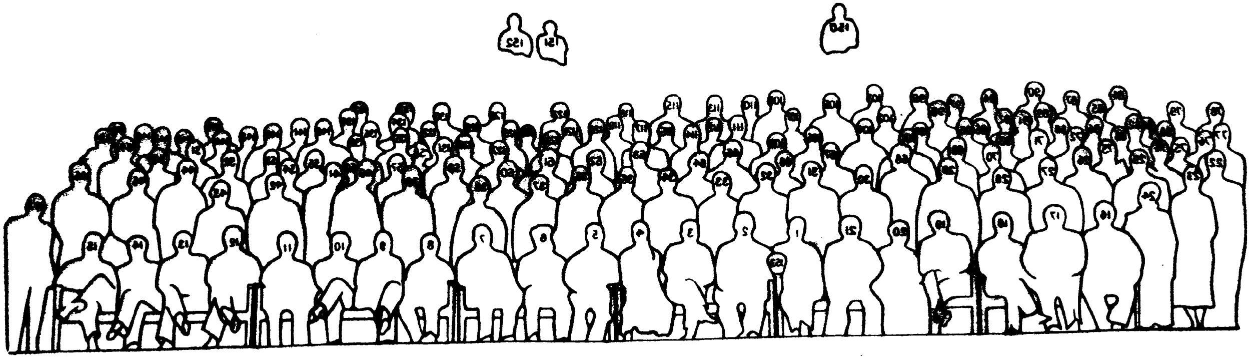
21. *Czechoslovakia* — The Crisis in Czechoslovakia, by Dr. BRDLIK.

22. The International Sugar Convention of 1931 (Chadbourne Plan) by FR. TENIUS-HALLE.

A number of copies both in English and German are still available. Application should be made to PROFESSOR M. SERING, BERLIN-DAHLEM, LUCIUSSTRASSE 9.



Members and Visitors attending Third International Conference of Agricultural Economists, Bad Eilsen, Germany, 1934



LIST OF PERSONS ATTENDING CONFERENCE AT BAD EILSEN, GERMANY

1. L. K. Elmhirst. *Great Britain.*
2. H. Schacht. *Germany.*
3. G. F. Warren. *U.S.A.*
4. Frau von Dietze. *Germany.*
5. O. Franges. *Yugoslavia.*
6. E. Laur. *Switzerland.*
7. H. Kissler. *Germany.*
8. G. Solmssen. *Germany.*
9. W. Bötzkes. *Germany.*
10. D. A. E. Harkness. *Great Britain.*
11. E. M. H. Lloyd. *Great Britain.*
12. J. R. Currie. *Great Britain.*
13. K. Saenger. *Germany.*
14. L. Drescher. *Germany.*
15. H. Siefkes. *Germany.*
16. T. Andersson. *Sweden.*
17. O. Anderson. *Bulgaria.*
18. S. Schmidt. *Poland.*
19. H. C. Taylor. *U.S.A.*
20. Frau Sering. *Germany.*
21. M. Sering. *Germany.*
22. T. G. Rees. *Great Britain.*
23. Mrs. K. Starr. *Great Britain.*
24. Miss M. E. E. Waldron. *Great Britain.*
25. W. Asmis. *Germany.*
26. J. L. Tennant. *U.S.A.*
27. J. Knespl. *Czecho-Slovakia.*
28. A. G. Ruston. *Great Britain.*
29. A. W. Ashby. *Great Britain.*
30. J. P. Maxton. *Great Britain.*
31. H. Zörner. *Germany.*
32. P. Borgedal. *Norway.*
33. S. K. Wu. *China.*
34. W. Allen. *Canada.*
35. O. C. Stine. *U.S.A.*
36. P. Chang. *China.*
37. — Pauli. *Switzerland.*
38. Frau Solmssen. *Germany.*
39. B. von der Marwitz. *Germany.*
40. C. Krull. *Germany.*
41. C. Worliczek. *Czecho-Slovakia.*
42. R. Regul. *Germany.*
43. W. Klose. *Norway.*
44. H. Brenning. *Germany.*
45. — Scharfe. *Germany.*
46. A. von Machui. *Germany.*
47. — Potter.
48. A. Hanau. *Germany.*
49. D. F. Christy. *U.S.A.*
50. Mrs. Christy. *U.S.A.*
51. Mrs. Whelpton. *U.S.A.*
52. H. Commichau. *Germany.*
53. G. B. Bisset. *Great Britain.*
54. R. Bräuning. *Germany.*
55. S. C. Ray. *India.*
56. B. Brutzkus. *Germany.*
57. E. von der Decken. *Germany.*
58. Fräulein I. Kisker. *Germany.*
59. W. Seedorf. *Germany.*
60. J. E. Lattimer. *Canada.*
61. E. Woermann. *Germany.*
62. F. W. Fudickar. *Germany.*
63. H. Wilbrandt. *Germany.*
64. Freiherr von Schorlemer-Lieser. *Germany.*
65. W. Pfaff. *Germany.*
66. Fräulein L. Werner. *Germany.*
67. Fräulein J. Hanson. *Germany.*
68. C. von Dietze. *Germany.*
69. R. R. Enfield. *Great Britain.*
70. O. Schiller. *Germany.*
71. —
72. F. Sohn. *Germany.*
73. S. von Frauendorfer. *Germany.*
74. L. Herrmann. *Germany.*
75. O. Vopelius. *Germany.*
76. Mrs. Carslaw. *Great Britain*
77. D. L. Wickens. *U.S.A.*
78. R. McG. Carslaw. *Great Britain.*
79. J. J. MacGregor. *Great Britain.*
80. Frau Drescher. *Germany.*
81. Mrs. Grosskopf. *South Africa.*
82. G. Pavlovski. *Italy.*
83. O. E. Baker. *U.S.A.*
84. G. Albrecht. *Germany.*
85. A. G. Peterson. *U.S.A.*
86. S. W. Mendum. *U.S.A.*
87. H. J. Seraphim. *Germany.*
88. — Beer. *Germany.*
89. —
90. M. D. Dijt. *Netherlands.*
91. K. Freytag. *Germany.*
92. — Mansfeld. *Germany.*
93. Mrs. Cunningham. *U.S.A.*
94. O. Brock. *Germany.*
95. Fräulein U. Pritzel. *Germany.*
96. L. C. Cunningham. *U.S.A.*
97. B. Pfister. *Germany.*
98. O. Donner. *Germany.*
99. F. W. von Bülow. *Great Britain.*
100. T. Tröscher. *Germany.*
101. T. J. Tantzen. *Germany.*
102. S. Hesse. *Germany.*
103. A. W. Welch. *Australia.*
104. K. Meyer. *Germany.*
105. G. Stockmann. *Germany.*
106. — Schürmann. *Germany.*
107. F. Windirsch. *Czecho-Slovakia.*
108. A. Münzinger. *Germany.*
109. O. Hauck. *Denmark.*
110. —
111. O. Emminger. *Germany.*
112. A. P. van den Briel. *Netherlands.*
113. M. C. Bond. *U.S.A.*
114. H. N. Young. *U.S.A.*
115. O. Ulrey. *U.S.A.*
116. J. F. W. Grosskopf. *South Africa.*
117. H. M. Dixon. *U.S.A.*
118. S. R. Carver. *Australia.*
119. P. J. O'Hara. *Great Britain.*
120. H. A. Berg. *U.S.A.*
121. E. Ll. Harry. *Great Britain.*
122. M. Rolfes. *Germany.*
123. S. B. Barman. *India.*
124. W. M. Curtiss. *U.S.A.*
125. J. R. Santaella. *Spain.*
126. A. Schindler. *Germany.*
127. A. Skalweit. *Germany.*
128. G. W. Hedlund. *U.S.A.*
129. A. H. Brown. *Great Britain.*
130. K. Schneider. *Germany.*
131. E. Lang. *Germany.*
132. G. P. Boals. *U.S.A.*
133. C. V. Noble. *U.S.A.*
134. W. Seelmann-Eggebert. *Germany.*
135. H. von der Decken. *Germany.*
136. — Wettstein. *Germany.*
137. — Gehrmann. *Germany.*
138. W. H. Long. *Great Britain.*
139. W. H. Senior. *Great Britain.*
140. F. Ahlgrimm. *Germany.*
141. T. W. Grindley. *Canada.*
142. W. Husmann. *Germany.*
143. B. Mehrens. *Germany.*
144. P. K. Whelpton. *U.S.A.*
145. O. Noltenius. *Germany.*
146. Fräulein Bier. *Germany.*
147. H. Niehaus. *Germany.*
148. F. Schlömer. *Germany.*
149. R. Freund. *Germany.*
150. Graf Bismarck. *Germany.*
151. Frau Medinger. *Czecho-Slovakia.*
152. W. Medinger. *Czecho-Slovakia.*
153. (The Cow Bell.)

OTHERS PRESENT AT CONFERENCE ABSENT FROM PHOTOGRAPH

H. D. Leppan. *South Africa.*
Mrs. Wu. *China.*
F. Buček. *Czecho-Slovakia.*
J. Jessen. *Germany.*
F. Mendelssohn. *Germany.*
K. Ritter. *Germany.*
H. Schumacher. *Germany.*
H. Stremme. *Germany.*
— Vogelsang. *Germany.*
H. Weigmann. *Germany.*
F. Baade. *Germany.*
— von Bethmann-Hollweg. *Germany.*
— Buchholz. *Germany.*
— Büsselberg. *Germany.*
W. Drechsler. *Germany.*
Freiherr von Falkenhausen. *Germany.*
H. L. Fensch. *Germany.*
— Fischer. *Germany.*
J. Frost. *Germany.*
— Heyn. *Germany.*
— Hilgenstock. *Germany.*
— Krömer. *Germany.*
W. Lattemann. *Germany.*
— Ludowici. *Germany.*
F. Melzer. *Germany.*
Freiherr von der Ropp. *Germany.*
— Spiller. *Germany.*
E. Wagemann. *Germany.*
E. Winter. *Germany.*
W. M. Vane. *Great Britain.*
G. Lorenzoni. *Italy.*
A. Pagani. *Italy.*
G. Tassinari. *Italy.*
G. Minderhoud. *Netherlands.*
Ll. V. Steere. *U.S.A.*
E. St. Kirby. *U.S.A.*
C. Brinkmann. *Germany.*
Mrs. Enfield. *Great Britain.*

INTERNATIONAL CONFERENCE OF AGRICULTURAL ECONOMISTS

CONFERENCES

First, 1929: Dartington Hall, Totnes, Devon, England.
Second, 1930: Cornell University, Ithaca, New York State, U.S.A.
Third, 1934: Bad Eilsen, Schaumburg-Lippe, Germany.

OFFICERS

President

ELMHIRST, L. K., Dartington Hall, Totnes, Devon, England.

Vice-Presidents

WARREN, G. F., Department of Agricultural Economics and Farm Management, Cornell University, Ithaca, New York State, U.S.A.
SERING, M., Deutsches Forschungs-Institut für Agrar- und Siedlungswesen, Berlin-Dahlem, Luciusstrasse 9, Germany.

Hon. Secretary and Treasurer

CURRIE, J. R., Research Dept. (Economics), Dartington Hall, Totnes, Devon, England.

THE International Conference of Agricultural Economists was inaugurated during the summer of 1929, when fifty economists from eleven countries met for two weeks at Dartington Hall, Devon, England, on the invitation of Mr. L. K. Elmhirst. The Second Conference was held in 1930 at Cornell University, Ithaca, N.Y., U.S.A., and was attended by over 300 members and visitors, twenty countries being represented. At this meeting the formal Constitution was drawn up and approved. The Third Conference was held at Bad Eilsen, Schaumburg-Lippe, Germany, from August 26th to September 2nd, 1934, when 170 members attended, of whom 76 were from 18 countries outside Germany.

The Conference has now a total membership of 393, with Groups or Correspondents in 30 countries. Its representative character has been steadily growing since the first informal gathering in 1929, until it now embraces the majority of countries where the study of agricultural economics is pursued.

The object of the Conference is that of fostering development of the services of agricultural economics and of furthering the application of the results of economic investigation of agricultural processes and agricultural organization in the improvement of economic and social conditions relating to agricultural and rural life.

Membership is open to any person or institution connected with the study of agricultural economics. The subscription is £1, $5, RM. 20, or the monetary equivalent of £1 at par, for the period from one conference to the end of the next. The majority of members are professional agricultural economists engaged in research, teaching, or public administration, but the membership is representative as well of a wide range of agricultural and economic interests. Applications may be made to the Secretary, who will put the applicant in touch with the appropriate national correspondent.

Meetings are held at intervals of two or three years at a time and place determined by the Council. No two successive meetings can be held in the same country. The meetings afford a unique opportunity of personal intercourse with fellow workers from all parts of the world.

Proceedings consisting of papers and discussions at each conference are published, and members are entitled to one copy. Extra copies may be purchased by members at reduced rates. Copies of the Proceedings of the First, Second, and Third Conferences are available on application to the Secretary, or to Dr. G. F. Warren, Department of Agricultural Economics, Cornell University, Ithaca, N.Y., U.S.A. A German edition of the Third Conference Proceedings is available on application to Prof. M. Sering, Berlin-Dahlem, Luciusstrasse 9, Germany.

CONSTITUTION

(ADOPTED AT THE SECOND CONFERENCE)

NAME AND OBJECT

The name of the organization shall be The International Conference of Agricultural Economists.

The object of the Conference is that of fostering development of the sciences of agricultural economics and of furthering the application of the results of economic investigations of agricultural processes and agricultural organization in the improvement of economic and social conditions relating to agriculture and rural life.

MEETINGS

Meetings shall be held at a time and place determined by the Council. No two successive meetings shall be held in any one country.

The Conferences of 1929 and 1930 shall be called, respectively, the First and Second International Conferences of Agricultural Economists.

MEMBERSHIP

Membership shall consist of individuals who pay 20 RM., $5, or £1, or the monetary equivalent of £1, for the period from one Conference to the end of the next.

Libraries, corporations, and similar institutions may become Members if a duly accredited representative is appointed by each such institution.

Those who become Members within one year from the date of the adoption of this Constitution shall be considered Charter Members.

OFFICERS

The Officers shall be a President, two Vice-Presidents, and a Secretary-Treasurer. The Officers shall hold office for a period ending with the close of the next succeeding Conference.

ELECTION OF OFFICERS

The Council shall nominate Officers to be elected by the Conference.

COUNCIL

The Members of the Conference in each country or group of countries may provide for the election of Members of a Council as hereinafter provided:

(*a*) Each country or group of countries with five or more Members may elect one Member to Council. An additional Member of the Council may be elected by each country or group of countries for each additional ten Members, with a maximum of three Members of Council from any one country or group of countries.

(*b*) Members of the Council shall be elected prior to or during each Conference for the succeeding Conference. The Council elected in 1930–1 shall continue in office for the purposes of the next Conference until the end of that Conference, and the Council constituted in the early part of each subsequent Conference shall nominate Officers and Executive Committee for the ensuing Conference.

It shall be the duty of the Members of the Council to elect an Executive Committee of eight Members, to nominate Officers of the Conference, and to promote the interests of the Conference in the respective countries.

EXECUTIVE COMMITTEE

The Executive Committee shall consist of the four Officers and eight Members elected by the Council. The Executive Committee shall arrange programmes and otherwise conduct the business of the Conference. The Executive Committee shall fill any vacancies which may occur in any office.

AMENDMENT OF CONSTITUTION

The Constitution may be amended by a majority vote at any Conference provided the amendment has previously received the approval of a majority of the Council.

PROVISIONS FOR TEMPORARY ORGANIZATION

Since the Constitution does not make all necessary provisions for immediate organization, the Committee submits the following suggestions for the guidance of the Conference until the provisions of the Constitution can be made effective.

1. (*a*) The Officers for the period of the Third Conference shall be elected by this Conference.
   (*b*) Persons who signify their intention of becoming Members of the Conference before the Conference proceeds to the election of Officers may vote in the election of Officers.
2. (*a*) The Members of the Council may be elected by Members of the Conference in any country or group of countries as provided for in the Constitution.
   (*b*) The method of electing Members of Council shall be left to the discretion of each electing country or group of countries, but, until the original membership is secured, a Correspondent shall be appointed by the Executive Committee to canvass his country for Members and provide for the election of Members of the Council.
3. (*a*) The Members of the Council when selected shall become Members of the Executive Committee until a total of sixteen or more Members of the Council has been selected by Members.
   (*b*) When 16 or more Members of the Council are selected, the Officers of the Conference shall arrange for the election of eight Members to the Executive Committee by the Members of the Council.

LIST OF OFFICERS AND MEMBERS

(For 1930–4)

OFFICERS

President

Elmhirst, L. K., Dartington Hall, Totnes, Devon, England.

Vice-Presidents

Warren, G. F., Department of Agricultural Economics and Farm Management, Cornell University, Ithaca, N.Y., U.S.A.
Sering, M., Deutsches Forschungs-Institut für Agrar-und Siedlungswesen, Berlin-Dahlem, Luciusstrasse 9, Germany.

Hon. Secretary and Treasurer

Currie, J. R., Research Department (Economics), Dartington Hall, Totnes, Devon, England.

MEMBERS

AFRICA

EGYPT

La Société Royale d'Agriculture, Cairo.
(*Representative*: M. Fouad Bey Abaza.)

UNION OF SOUTH AFRICA

Joint Correspondents:
Leppan, H. D., Department of Agricultural Economics, University of Pretoria, Pretoria.
Van Der Post, A. P., Acting-Chief, Division of Agricultural Economics and Marketing, Union Department of Agriculture, Pretoria.

Geldenhuys, F. E., Department of Forestry, Pretoria.

AMERICA

CANADA

Council:
Allen, W., University of Saskatchewan, Saskatoon, Saskatchewan.
Booth, J. F., Agricultural Economics Branch, Department of Agriculture, Ottawa, Ontario.
Lattimer, J. E., Macdonald College, St. Anne de Bellevue, P.Q.
Correspondent:
Booth, J. F. (See above.)

Auld, F. H., Deputy Minister of Agriculture, Regina, Saskatchewan.
Bois, H. C., Rural Economics Branch, Department of Agriculture, Quebec.
Brown, W. J., Executive Secretary, University of Western Ontario, London, Ontario.
Burrows, L. F., Secretary, Horticultural Council, Ottawa, Ontario.
Cairns, A., Wheat Advisory Committee, Bush House, London, W.C.2, England.
Chagnon, S. J., Department of Agriculture, Parliament Buildings, Quebec.
Clement, F. M., Dean of Agriculture, University of British Columbia, Vancouver, British Columbia.
Coke, J., Agricultural Economics Branch, Department of Agriculture, Ottawa, Ontario.
Collins, C. M., Agricultural Representative, Lawrencetown, Annapolis County, Nova Scotia.

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PRINTED IN
GREAT BRITAIN
AT THE
UNIVERSITY PRESS
OXFORD
BY
JOHN JOHNSON
PRINTER
TO THE
UNIVERSITY